You must read the Usage and Safety Precautions before use.

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Thank you very much for purchasing a ZOOM F6 multitrack field recorder. The F6 provides the following features in a compact form.

- **Record the quietest and loudest sounds at high quality with 32-bit float WAV format**
The high-quality analog input circuits can handle signals ranging from the most delicate to a professional maximum level of +24 dBu. In addition to 16/24-bit WAV recording, 32-bit float WAV recording, which does not require input level adjustment, is also supported. With 32-bit float WAV format, the recording resolution can be retained even when changing levels greatly after recording.

- **Simultaneously record 6 channels and 14 tracks**
Up to 14 tracks can be recorded simultaneously, including 16/24-bit WAV and 32-bit float WAV for Inputs 1–6 along with left and right tracks of a stereo mix.

- **Support for three types of batteries**
A USB mobile battery, L battery or AA batteries can be used for power.

- **Two remote control options**
Wireless control is possible by installing a ZOOM wireless adapter (e.g. BTA-1) and using the F6 Control iOS app. Moreover by connecting an F6 Control, which is a mixer-style controller designed especially for F Series recorders, with a USB cable, 60mm track faders, LED level meters and various transport buttons can be used for intuitive sound control. Combined with the F6 Control iOS app, iPhones and iPads can also be used as large meters with excellent visibility.

- **Support for SMPTE timecode input and output along with wireless timecode input**
The F6 uses a high-precision oscillator that enables it to independently generate accurate timecode with a discrepancy of less than 0.5 frames per 24 hours. If a BTA-1 dedicated wireless adapter is installed, wireless timecode can be received from a Timecode Systems UltraSync BLUE and written to recorded files.

- **Headphone jack with 100mW+100mW maximum output**
Clear headphone monitoring is possible using the digital boost function while sending audio signals to a video camera or other device from the LINE OUT jack.

- **Flexible signal routing also makes mixer use possible**
Pre-fader and post-fader signals from inputs 1–6 can be routed to outputs freely.

- **Phantom power supply (+24 V or +48 V)**
This can be set for each input separately.

- **USB audio interface use with up to 6 ins and 4 outs possible**
Use as a 2-in/2-out or 6-in/4-out audio interface (driver required for Windows).

- **Output multitrack audio by USB while recording**
While recording to the installed SD card, multitrack audio can be sent to and from a computer by USB with up to 8 inputs (6 inputs + L/R stereo mix) and 4 outputs. This enables simultaneous backup recording and Internet live streaming.

- **360° audio**
Ambisonic mode enables 360° spatial audio recording using VR mics. Decoding from Ambisonic format A to format B is supported along with gain and setting link functions.
Achieving high audio quality throughout recording and editing

With the dual A/D converter circuits and support for 32-bit float WAV files, the F6 can maintain the highest audio quality from recording to post-production.

**Recording**

Dual A/D converter circuit enables recording both loud and quiet sounds without making gain adjustments

**Post-production**

32-bit float WAV file format maintains audio quality from recording when editing
Dual A/D converter circuit overview

For each input circuit, the F6 has two A/D converters with different input gains. This design enables high-quality audio recording without the need to adjust gain settings, a step that is normally indispensable.

Providing amazing dynamic range
By combining two A/D converters, a wide dynamic range not possible with a single A/D converter has been realized.

Switching between two A/D converters
The F6 constantly monitors data from the two A/D converters, and automatically selects the one that provides the best recording results.
32-bit float WAV file overview

32-bit float WAV files have the following advantages over conventional 16/24-bit linear WAV files. These features enable the quality of the sound during recording to be maintained even during post-production.

Resolution advantage
32-bit float WAV files have the advantage of being able to maintain high resolution even at low volumes. As a result, quiet sounds can be made louder when editing after recording without degrading their quality.

Clipping advantage
If a waveform sounds clipped when output from the F6 or in a DAW, it can be edited after recording to lower its volume and restore an unclipped waveform because the data in the 32-bit float WAV file itself is not clipped.
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Names of parts

■ Front

- Status indicator
  - Red: Input enabled
  - Green: Playback track enabled
  - Orange: PFL monitoring
  - Unlit: Input disabled
- MENU button
  - Home Screen: Open Menu Screen
  - Menu Screen: Return to previous screen
- PFL/ENTER button
  - Home Screen: Open PFL Screen
  - Menu Screen: Confirm menu item
- Track knob
- Display
- FF/↑ button
  - Home Screen: Select playback take
  - Menu Screen: Select menu item
- RWD/↓ button
  - Home Screen: Select playback take
  - Menu Screen: Select menu item
- STOP button
- REC button
- PLAY/PAUSE button

■ Back

- SD card slot
- L battery lock button
- L battery mount
Left side

- USB port (Type-C)
- LINE OUT jack
- Zoom wireless adapter (e.g. BTA-1)

Right side

- TIMECODE IN/OUT jack
- HEADPHONE jack
- POWER switch

Inputs 1–3

- Inputs 4–6

TIMECODE IN/OUT

- XLR: 1: GND, 2: HOT, 3: COLD
- TRS: TIP: Input to F6 (output from external device), RING: Output from F6 (input to external device), SLEEVE: GND

Battery cover
Connecting mics/other devices to Inputs 1–6

The F6 can record 6 individual tracks that correspond to Inputs 1–6 and a stereo mix of these inputs with left and right tracks. Mics and the outputs of instruments and audiovisual equipment, for example, can be connected to Inputs 1–6 and recorded to tracks 1–6.

Connecting mics
Connect dynamic and condenser mics with XLR plugs to Inputs 1–6. Phantom power (+24 V/+48 V) can be supplied to condenser mics. (→ P. 81)

Connecting line level equipment
Connect XLR cables from keyboards and mixers directly to Inputs 1–6. Direct input of passive guitars and basses is not supported. Connect these instruments through a mixer or effects device.

NOTE
When disconnecting an XLR cable, pull the XLR plug while pushing the connector lock release button.
Equipment connection examples

Recording is possible in a variety of situations like these.

**While filming**
- Input 1: gun mic for main subject sound
- Inputs 2–4: lapel mics for performers
- Inputs 5–6: mics for ambient sound

**Concert recording**
- Inputs 1–2: line inputs for outputs from mixer
- Inputs 3–4: mics for stage performance
- Inputs 5–6: ambient mics for audience sound
Display overview

Home Screen

Status icons
- Stopped
- Recording
- Paused
- Playing back

Counter
During recording: Elapsed/remaining recording time
During playback: Elapsed/remaining playback time

Recording/playback sample rate

Clip indicator

Level meter

Track number
Red: Input enabled
Green: Playback track enabled
Gray: Input disabled

Input link settings are shown by connected adjacent track numbers.

Recording/playback take name
When stopped, press and hold to show the name that will be given to the next recorded take.

Recording/playback timecode

Frame rate
INT: Internal timecode enabled
EXT: External timecode input enabled

Power type and remaining amount
USB: Power supply connected to port
EXT: L battery
AA: AA batteries

HINT
- When the Home Screen is not open, press and hold to return to the Home Screen.
- Some of the screen will appear differently when the recording mode is Float (32 bit).
Character input screen

Text box

Keyboard

Operation indicator

Press abc

Press #+=

Press 123

Press *

Automatic input button

NOTE

- The following characters can be used in project names.
- (space) ! # $ ' () + , - 0 1 2 3 4 5 6 7 8 9 ; = @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [ ] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { }
### Editing operations

<table>
<thead>
<tr>
<th>Operation</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move cursor in text box</td>
<td>Use “←” and “→” to move and press ✓</td>
</tr>
<tr>
<td>Select characters (vertical)</td>
<td>Press ▲ or ▼</td>
</tr>
<tr>
<td>Select characters (horizontal)</td>
<td>Press [ or ]</td>
</tr>
<tr>
<td>Confirm characters</td>
<td>Move the cursor to the character to input, and press ✓</td>
</tr>
<tr>
<td>Delete characters</td>
<td>Move cursor before the character to delete in the text box, and press ●</td>
</tr>
<tr>
<td>Complete editing</td>
<td>Move cursor to &quot;OK&quot; and press ✓</td>
</tr>
<tr>
<td>Cancel editing</td>
<td>Press ❄</td>
</tr>
</tbody>
</table>

### Automatic input keys

(Date): This automatically inputs the date. Example: 190210
(Time): This automatically inputs the time. Example: 180950
(Scene): This automatically inputs the current scene name.
Preparations

Supplying power

Power can be supplied three ways using AA batteries, an L battery or USB.

■ Using AA batteries

1. Loosen the screw in the battery cover on the bottom.
2. Open the battery compartment cover on the bottom, remove the battery case, and insert 4 AA batteries.
3. Put the case into the compartment.
4. Close the battery cover and tighten the screw.

■ Using an L battery

1. Slide the battery in the direction of the arrow while pressing it toward the recorder.

NOTE
• Be careful because the battery case could become loose unexpectedly if the battery compartment cover screw is not tightened firmly.
• Use only one type of batteries (alkaline, NiMH or lithium) at a time.
• After loading AA batteries, set "Power Source" to the correct type of battery. (→ P. 23)
• If the remaining battery power indicator becomes red, turn the power off immediately and install new batteries.
Using a USB Type-C cable

1. Connect the cable of the dedicated ZOOM AD-17 AC adapter to the USB port.

2. Plug the dedicated AC adapter into an outlet.

NOTE
- A 5V mobile battery (commercially-available) can also be connected.
- When connected to a computer, power can be supplied by USB.
Loading SD cards

1. Open the SD card slot cover, and insert an SD card.

2. To remove the card: push it further into the slot and then pull it out.

**NOTE**
Before using SD cards that have just been purchased or that have been formatted on a computer, they must be formatted. To format an SD card, use Menu > SYSTEM > SD Card > Format.
Turning the power on and off

■ Turning the power on

1. Press and hold briefly.

The ZOOM logo appears and the power turns on.

■ Turning the power off

1. Press and hold briefly.

NOTE
Keep pressing it until the ZOOM logo appears on the LCD.

NOTE
• The first time the power is turned on after purchase, the date/time must be set (→ P. 21). This setting can also be changed later.
• If “No Card!” appears on the display, confirm that an SD card is inserted properly.
• If “Card Protected!” appears on the display, the SD card write-protection is enabled. Slide the lock switch on the SD card to disable write-protection.
• If “Invalid Card!” appears on the display, the card is not formatted correctly. Format the card or use a different card. Formatting SD cards (→ P. 178)
Setting the language

The **F6** menu display language can be changed.

1. Press 📺.
2. Use 🔍 and ⬇️ to select **SYSTEM**, and press ✔️.
3. Use 🔍 and ⬇️ to select **Language**, and press ✔️.
4. Use 🔍 and ⬇️ to select the desired language, and press ✔️.

**NOTE**
The first time the power is turned on after purchase, the language must be set.
Setting the date and time

The date and time set on the **F6** are used when recording files, for example. The date format (order of year, month and day) can also be set.

1. Press 📅.

2. Use ▲ and ▼ to select SYSTEM, and press ✅.

3. Use ▲ and ▼ to select Settings, and press ✅.

4. Use ▲ and ▼ to select Date/Time, and press ✅.

▶ Continue to one of the following procedures.

- Setting the date and time ................................................................. P. 22
- Setting the date format ................................................................. P. 22

**NOTE**

- The first time the power is turned on after purchase, the date/time must be set.
- The **F6** has a built-in rechargeable battery for retaining the date and time. Turning the power on will charge it.
- If the power is not turned on for a long time, stored date and time settings will be reset.
- If the Date and Time Setting Screen appears during startup, set them again.
5. Use \(\uparrow\) and \(\downarrow\) to select Set Date/Time, and press \(\checkmark\).

6. Set the date and time
   Move cursor or change value:
   Use \(\uparrow\) and \(\downarrow\)
   Change item value:
   Use \(\uparrow\) and \(\downarrow\) to select the item, and press \(\checkmark\).

7. The item selected to be changed appears red.
   Use \(\uparrow\) and \(\downarrow\) to change it, and press \(\checkmark\).

8. When done setting, use \(\uparrow\) and \(\downarrow\) to select Enter, and press \(\checkmark\).
   This completes setting the date and time.

■ Setting the date format

5. Use \(\uparrow\) and \(\downarrow\) to select Date Format, and press \(\checkmark\).

6. Use \(\uparrow\) and \(\downarrow\) to select the format, and press \(\checkmark\).

---

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm/dd/yy</td>
<td>Month, day, year order</td>
</tr>
<tr>
<td>dd/mm/yy</td>
<td>Day, month, year order</td>
</tr>
<tr>
<td>yy/mm/dd</td>
<td>Year, month, day order</td>
</tr>
</tbody>
</table>
Setting the power supply used

When using AA batteries, set the battery type so that the amount of remaining power can be shown accurately. The voltage of each power supply and the remaining battery charge can be checked on this menu page.

1. Press ‹. 

2. Use ‹ and † to select SYSTEM, and press ✅.

3. Use ‹ and † to select Settings, and press ✅.

4. Use ‹ and † to select Power Source, and press ✅.
Setting the installed AA battery type

5. Use ▲ and ▼ to select Type, and press ✔.

6. Use ▲ and ▼ to select the type, and press ✔.

NOTE
• When multiple power supplies are connected, they will be used in the following order of priority.
  1. USB (Power supply connected to USB port)
  2. EXT (L battery)
  3. AA (Installed AA batteries)
• The voltages of each power supply are shown on the display.
Recording

Recording process

Recording with the **F6** follows the process shown below.
The data created for each recording occurrence is called a "take".

1. **Set the recording mode (bit depth)** (∴ P. 32).
   • Select one of the recording modes: 16/24-bit WAV, 32-bit Float WAV, simultaneous 16/24-bit WAV and 32-bit WAV, or MP3.

2. **Set the recording file** (∴ P. 26).
   • Set the recording file format.
   • Set the sampling rate (∴ P. 30).

3. **Select tracks to record** (∴ P. 51).
   • Turn the **** left until it clicks to disable the input. Input is enabled at all other positions.
   • This can be set to a stereo track (∴ P. 99).

4. **Make various input and recording settings** (∴ P. 67).
   • Settings, including metadata, pre-recording (∴ P. 38), low-cut filter (∴ P. 85) and limiter (∴ P. 87) can be made.

5. **Adjust input levels** (∴ P. 28).
   • Setting input levels is necessary in some operation modes.

Connect mics, instruments, audiovisual devices, and other equipment to Inputs 1–6. (∴ P. 11)

Connect the power on (∴ P. 19)

Preparing to record

Recording (∴ P. 29)

Playing and checking (∴ P. 54)

Checking take information (∴ P. 67)
Setting the recording file format

1. Press ⏰.

2. Use ▲ and ▼ to select REC, and press ✓.

3. Use ▲ and ▼ to select File Format, and press ✓.

4. Use ▲ and ▼ to select the file format, and press ✓.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Tracks recorded</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly</td>
<td>Selected tracks 1-6</td>
<td>A single poly file will be created that contains audio for multiple tracks.</td>
</tr>
<tr>
<td>Mono/Stereo</td>
<td></td>
<td>A single mono file is created for each mono track and a single stereo file is created for each stereo track.</td>
</tr>
</tbody>
</table>

**NOTE**

- When recording Mono/Stereo, audio files are saved in a folder that is created. (→ P. 43)
- This cannot be set when the mode is set to MP3.
Selecting inputs and adjusting levels

Select which among Inputs 1–6 to use. Inputs will be recorded on tracks with the same numbers. For example, Input 1 will be recorded on track 1 and Input 2 will be recorded on track 2.

Selecting inputs

1. Turn ⬇️ right for the number of an input to record, making the track status indicator light.

**HINT**

Turn ⬆️ left until it clicks to disable the input. Input is enabled at all other positions.

<table>
<thead>
<tr>
<th>Track indicator</th>
<th>Track number background color</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lit red</td>
<td>Red</td>
<td>The input is enabled.</td>
</tr>
<tr>
<td>Unlit</td>
<td>Gray</td>
<td>The input is disabled.</td>
</tr>
</tbody>
</table>

**NOTE**

• The signals from the inputs selected this way will also be sent to the L/R tracks.
• The levels sent to the L/R tracks are adjusted with ⬇️.
Adjusting input levels

1. Press \( \text{INPUT} \).

2. Use \( \text{UP} \) and \( \text{DOWN} \) to select \( \text{INPUT} \), and press \( \text{INPUT} \).

3. Use \( \text{UP} \) and \( \text{DOWN} \) to select \( \text{PFL} \), and press \( \text{INPUT} \).

4. Use \( \text{UP} \) and \( \text{DOWN} \) to select the desired track, and press \( \text{INPUT} \).

5. Use \( \text{UP} \) and \( \text{DOWN} \) to select \( \text{Trim} \), and press \( \text{INPUT} \).

6. Use \( \text{UP} \) and \( \text{DOWN} \) to adjust the input level, and press \( \text{INPUT} \).

**NOTE**
Trim cannot be used when the recording mode is set to Float. When set to Float, the setting is shown as “–”.

**HINT**
- This can be set in a range from +12 to +75 dB when the input source is set to Mic, from –8 to +55 dB when set to Line, and from –35 to +30 dB when set to USB.
- If the sound distorts even after lowering the input level, try changing mic positions and adjusting the output levels of connected devices.
- Using the limiter (→ P. 87)
- Using the high pass filter (→ P. 85)
Recording

1. Press [●].
   This starts recording.

   **HINT**
   If the timecode function is enabled, recording will start from frame 00 (00 or 02 when using drop frame) and the file length will always be a full second value. This makes synchronization easy when editing later.

2. Press [●] to start a new take when recording.
   This will end the current take and start a new take while continuing to record without interruption.

   **NOTE**
   Pressing [●] during recording is only possible after recording for at least a second.

3. Press [●] to pause.

   **NOTE**
   - Pausing occurs at whole second increments.
   - When recording is paused, a mark is added at that point.
   - Press [●] to resume recording.
   - A maximum of 99 marks can be added to a take.

   **HINT**
   - During playback, [▲] and [▼] can be pressed to jump to places where marks have been added.
   - Marks can be added without pausing. ( → P. 170)

4. Press [■] to stop.

   **NOTE**
   If the file size exceeds 2GB during recording, a new take will be created automatically and recording will continue without interruption. No gap in sound will occur between the two takes when this happens.

   **HINT**
   - Press and hold [■] when the Home Screen is open to check the name of the next take recorded.
   - Files are automatically saved at regular intervals during recording. If the power is interrupted or another problem occurs during recording, an affected file can be restored to normal by playing it with the F6.
Setting the sampling rate

The sampling rate used to record files can be set.

1. Press 📢.

2. Use ⬆️ and ⬇️ to select REC, and press ✔️.

3. Use ⬆️ and ⬇️ to select Sample Rate, and press ✔️.

4. Use ⬆️ and ⬇️ to select the sampling rate, and press ✔️.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 192 kHz</td>
<td>These are standard sampling rates.</td>
</tr>
<tr>
<td>47.952 kHz</td>
<td>Select this when recording video at 23.976 frames per second in order to edit later at 24 frames per second.</td>
</tr>
<tr>
<td>48.048 kHz</td>
<td>Select this when recording video at 24 frames per second in order to edit later at NTSC 29.97 or 23.98 HD.</td>
</tr>
<tr>
<td>47.952 kHz(F), 48.048 kHz(F)</td>
<td>These function the same as the two above, but the sampling rate metadata will be recorded as 48 kHz for &lt;FILE_SAMPLE_RATE&gt;. This enables playback and editing with devices and software that do not support 47.952 kHz and 48.048 kHz WAV files. Playback, however, will occur at the ±0.1% speed at which the file was recorded.</td>
</tr>
</tbody>
</table>
NOTE

• 192 kHz cannot be selected when the recording mode is Float (32bit) and the LR track is on.

• When 192 kHz is selected, Dual (16+32bit) and Dual (24+32bit) cannot be set.

• When the recording mode is MP3, only 44.1 kHz and 48 kHz can be selected.

• When 192 kHz is selected, L/R tracks will not be recorded. Input and output delay are also disabled.

• The Limiter cannot be set to On (Advanced) if Auto Mix is On or the Ambisonic format is not set to Off.

• AIF with Rec cannot be used when values other than 44.1 kHz or 48 kHz are selected.
Setting the recording mode (bit depth)

Set the recording mode.
The bit depth of WAV files recorded by the **F8** will change according to the mode setting.

1. Press 📷.

2. Use 🔃 and 🔽 to select REC, and press ✔.

3. Use 🔃 and 🔽 to select Mode, and press ✔.

4. Use 🔃 and 🔽 to select the mode, and press ✔.

**HINT**
The setting options are Linear (16bit), Linear (24bit), Float (32bit), Dual (16+32bit), Dual (24+32bit) and MP3.
<table>
<thead>
<tr>
<th>Mode setting</th>
<th>Mode name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear (16bit)</td>
<td>Linear</td>
<td>These modes record ordinary 16/24-bit WAV files. Adjust input (trim) levels so that the clip indicators do not light when recording. The level meters show input levels after adjustments.</td>
</tr>
<tr>
<td>Linear (24bit)</td>
<td>Float</td>
<td>This mode records 32-bit float WAV files. Adjusting input levels is unnecessary. As long as maximum input levels are not exceeded, both quiet and loud sounds can be recorded with high quality. The level meters show levels after adjustments by knobs.</td>
</tr>
<tr>
<td>Float (32bit)</td>
<td>Float</td>
<td>These modes simultaneously record ordinary 16/24-bit WAV files and 32-bit float WAV files. Adjust input (trim) levels so that the clip indicators do not light when recording. Even if clipping occurs in 16/24bit WAV file data during recording, data at a suitable level without clipping can be obtained by editing the 32bit Float WAV files during post-production.</td>
</tr>
<tr>
<td>Dual (16 + 32bit)</td>
<td>Dual</td>
<td>This mode records MP3 files. Trim setting is necessary in this mode.</td>
</tr>
<tr>
<td>Dual (24 + 32bit)</td>
<td>MP3</td>
<td>NOTE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• When Float (32bit) is selected, if a signal is input that exceeds the maximum input level for the input source (+4 dBu when Mic or +24 dBu when Line), an “Exceeding maximum input level” message will appear. If this message appears, adjust the output levels of the devices connected to the input jacks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• When Float (32bit) is selected, the limiter cannot be changed from off and the AIF with Rec function cannot be used. Moreover, Float (32bit) cannot be selected if the sample rate is 192 kHz and the LR track is on.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• When Dual (16 + 32 bit) or Dual (24 + 32bit) is selected, the limiter cannot be changed from off and the sample rate cannot be set to 192kHz.</td>
</tr>
</tbody>
</table>
Setting MP3 file bit rate (MP3)

The bit rate used for recording MP3 files can be set.

1. Press 🔄.

2. Use ⬆ and ⬇ to select REC, and press ☑.

3. Use ⬆ and ⬇ to select Mode, and press ☑.

4. Use ⬆ and ⬇ to select MP3, and press ☑.

5. Press 🔄 to return to the REC screen.

6. Confirm that the Mode is set to MP3. Then, use ⬆ and ⬇ to select Bit Rate, and press ☑.
7. Use \( \uparrow \) and \( \downarrow \) to select the bit rate, and press \( \checkmark \).

**HINT**
This can be set to 128 kbps, 192 kbps or 320 kbps.
Setting the LR Track

■ Enabling the LR track

1. Press \( \bigcirc \).

2. Use \( \uparrow \) and \( \downarrow \) to select \( \text{REC} \), and press \( \bigcirc \).

3. Use \( \uparrow \) and \( \downarrow \) to select \( \text{LR Track} \), and press \( \bigcirc \).

4. Use \( \uparrow \) and \( \downarrow \) to select \( \text{On/Off} \), and press \( \bigcirc \).

5. Use \( \uparrow \) and \( \downarrow \) to select \( \text{On} \), and press \( \bigcirc \).

NOTE

- **Off**: This disables the LR Track.
- **On**: This enables the LR Track. All selected tracks and the LR Track will be recorded.
- **On (LR only)**: This enables the LR Track. Only the LR Track will be recorded.
- **On cannot be selected if the sample rate is 192 kHz and the recording mode is Float (32bit).**
Adjusting the L/R track volume

1. Press 🎧.

2. Use ⬆️ and ⬇️ to select REC, and press ✅.

3. Use ⬆️ and ⬇️ to select LR Track, and press ✅.

4. Use ⬆️ and ⬇️ to select LR Fader, and press ✅.

5. Use ⬆️ and ⬇️ to select LR Fader, and press ✅.

6. Use ⬆️ and ⬇️ to change the LR fader value, adjusting the LR track volume.

NOTE
Pressing ✅ + ⬆️ when the Home Screen is open will also open the LR/Line Out setting screen.
Capturing audio before recording starts

The input signal is always buffered for a set amount of time, so it can be captured for up to 6 seconds before [ ] is pushed (pre-recording). This is useful when [ ] is pressed late, for example.

1. Press [ ].

2. Use [ ] and [ ] to select REC, and press [ ].

3. Use [ ] and [ ] to select Pre Rec, and press [ ].

4. Use [ ] and [ ] to select On, and press [ ].

### Sample Rate Maximum pre-recording time

<table>
<thead>
<tr>
<th>Sample Rate</th>
<th>Maximum pre-recording time</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.1 kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>48 kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>88.2 kHz</td>
<td>3 seconds</td>
</tr>
<tr>
<td>96 kHz</td>
<td>3 seconds</td>
</tr>
<tr>
<td>192 kHz</td>
<td>1 second</td>
</tr>
<tr>
<td>47.952 kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>47.952 (F) kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>48.048 kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>48.048 (F) kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>44.1 kHz</td>
<td>6 seconds</td>
</tr>
<tr>
<td>48 kHz</td>
<td>6 seconds</td>
</tr>
</tbody>
</table>

**NOTE**

Pre-recording will be disabled if MENU > TIMECODE > Mode (→ P. 127) is set to Int Record Run, Ext or Ext Auto Rec.
Setting the recording time display

During recording, either the elapsed recording time or the remaining possible recording time can be shown.

1. Press 📺.

2. Use ▲ and ▼ to select SYSTEM, and press ✔.

3. Use ▲ and ▼ to select Settings, and press ✔.

4. Use ▲ and ▼ to select Display, and press ✔.

5. Use ▲ and ▼ to select Time Display, and press ✔.
6. Use ▲ and ▼ to select Recording, and press ✔.

7. Use ▲ and ▼ to select the time to show, and press ✔.

**NOTE**
When recording for a long time, if the file size exceeds 2 GB, recording will continue in a new file and the recording time will reset. This can be changed, however, so that it is not reset and the total recording time is shown.
Set Rec Time Reset on the Time Display screen to On/Off to set whether or not recording time resets when a new file is created.

Off: When recording, even if the file size reaches 2GB, the counter shown on the Home Screen will not reset.

On (reset): When recording, if the file size reaches 2GB, the counter shown on the Home Screen will be reset to 000:00:00.
Setting the playback time display

During playback, either the elapsed playback time or the remaining playback time can be shown.

1. Press 📀.

2. Use ⇧ and ⬇ to select SYSTEM, and press ✅.

3. Use ⇧ and ⬇ to select Settings, and press ✅.

4. Use ⇧ and ⬇ to select Display, and press ✅.

5. Use ⇧ and ⬇ to select Time Display, and press ✅.

6. Use ⇧ and ⬇ to select Playing, and press ✅.
7. Use ▲ and ▼ to select the time to show, and press ✓.
Folder and file structure

When recording with the F6, folders and files are created on the SD card in the following manner. F6 folders and files are used to manage scenes and takes as a rule.

Folder and file structure
The folder and file structure differs according to the recording file format. In addition, the names of folders and files depend on how scenes are named.

NOTE
- Setting the recording file format (→ P. 26)
- Setting how scenes are named (mode) (→ P. 48)

HINT
Take: This is a unit of data created for a single recording.
Scene: This is a unit containing multiple files and takes that comprise a single scene.
### Take names

<table>
<thead>
<tr>
<th>Structure</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scene001-001</td>
<td>Scene name: Select none, the folder name, the date or a name input by the user (→ P. 48). Scene number: Press + to increase the number by one. Take number: This number increases by 1 with each recording made with the same scene name and scene number.</td>
</tr>
<tr>
<td>Take number (001–999)</td>
<td></td>
</tr>
<tr>
<td>Scene number (1-9999)</td>
<td></td>
</tr>
<tr>
<td>Scene Name</td>
<td></td>
</tr>
</tbody>
</table>

### Audio file names

File names given by the F6 differ according to polyphonic, mono and stereo file formats. Track numbers and other data are added to file names.

#### File names

File names are given according to the following formats.

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly file</td>
<td>Scene001-001.wav</td>
<td>This is a file created by polyphonic recording. Audio for multiple tracks is recorded to a single file.</td>
</tr>
<tr>
<td></td>
<td>Take name</td>
<td></td>
</tr>
<tr>
<td>Mono file</td>
<td>Scene001-001_Tr1.wav</td>
<td>This is a file created by monophonic recording.</td>
</tr>
<tr>
<td></td>
<td>Track number</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take name</td>
<td></td>
</tr>
<tr>
<td>Stereo file</td>
<td>Scene001-001_Tr1_2.wav</td>
<td>This is a file created by stereophonic recording.</td>
</tr>
<tr>
<td></td>
<td>Track number</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take name</td>
<td></td>
</tr>
<tr>
<td>Float file in Dual mode</td>
<td>Scene001_001_32FP.wav</td>
<td>This is a 32bit Float WAV file created when in Dual recording mode.</td>
</tr>
<tr>
<td></td>
<td>Float file characters</td>
<td></td>
</tr>
<tr>
<td>Long recording file</td>
<td>Scene001_001_0002.wav</td>
<td>This is a file created automatically when the file size exceeded 2 GB during recording. The long recording file number increases one each time the file changes.</td>
</tr>
<tr>
<td></td>
<td>Long recording file number</td>
<td></td>
</tr>
</tbody>
</table>

**HINT**

When recording with a Mono/Stereo setting, the audio files are saved in a take folder that is created.
Move the previously recorded take to the FALSE TAKE folder.

If the just recorded take was a failure, a shortcut can be used to move the recording to the FALSE TAKE folder.

1. Open the Home Screen.

2. While pressing ⬆️, press ⬇️.

   **HINT**
   - Moving a take to the FALSE TAKE folder reduces the take number by one.
   - Even during recording, the previously recorded take can be moved to the FALSE TAKE folder.

3. Use ⬆️ and ⬇️ to select Execute, and press ✔️.
Recorded take settings

Changing the note for the next take recorded

Characters can be input, for example, as a note to use as metadata in files.

1. Press 🎏.

2. Use ▲ and ▼ to select REC, and press ✓.

3. Use ▲ and ▼ to select Metadata, and press ✓.

4. Use ▲ and ▼ to select Note, and press ✓.

5. Use ▲ and ▼ to select Edit, and press ✓.

▶ Continue to one of the following procedures.

Editing notes ................................................................. P. 46
Selecting notes from the history list ................................. P. 47
6. **Edit the note.**
See "Character input screen" (→ P. 14) for how to input characters.

![Character Input Screen]

<table>
<thead>
<tr>
<th>No Slate</th>
<th>OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>A B C D E F G</td>
<td></td>
</tr>
<tr>
<td>H I J K L M N</td>
<td></td>
</tr>
<tr>
<td>O P Q R S T U</td>
<td></td>
</tr>
<tr>
<td>V W X Y Z -</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**
This note is written to the <NOTE> metadata.

5. **Selecting notes from the history list**

Use ▲ and ▼ to select History, and press ☑.

![History List]

6. **Selecting notes from the history list**

Use ▲ and ▼ to select the desired history item, and press ☑.

**NOTE**
The history list will be erased if the Factory Reset function is used.
Setting and managing recorded scene names

The way scenes are named (name mode) can be set.

1. Press ○.

2. Use ▲ and ▼ to select REC, and press ✔.

3. Use ▲ and ▼ to select Metadata, and press ✔.

4. Use ▲ and ▼ to select Scene Name, and press ✔.

5. Use ▲ and ▼ to select Mode, and press ✔.

▶ Continue to one of the following procedures.

- Setting how scenes are named (mode) ............................................. P. 48
- Changing scene names ...................................................................... P. 49
- Selecting a scene name from the history list ................................. P. 50
### Changing scene names

If Scene Name Mode is set to User Name, set the scene name used like this.

4. Use ▲ and ▼ to select User Name, and press ☑.

5. Use ▲ and ▼ to select Edit, and press ☑.

6. Edit the scene name.

   See "Character input screen" (→ P. 14) for how to input characters.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Folder</td>
<td>The name of the currently selected folder is used as the scene name.</td>
</tr>
<tr>
<td></td>
<td>☐ + ☑ can be used to advance the scene number by 1. After advancing the scene number by 1, the corresponding folder will be used as the recording destination. If that folder does not already exist, it will be created. Example: FOLDER001-001.wav</td>
</tr>
<tr>
<td>Date</td>
<td>The date is used as the scene name.</td>
</tr>
<tr>
<td></td>
<td>☐ + ☑ cannot be used to advance the scene number by 1. Example: 20190101-001.wav</td>
</tr>
<tr>
<td>User Name</td>
<td>A scene name input by the user is used.</td>
</tr>
<tr>
<td></td>
<td>☐ + ☑ can be used to advance the scene number by 1. Example: MYSCENE001-001.wav</td>
</tr>
</tbody>
</table>
**NOTE**
- The scene name is written to the <SCENE> metadata.
- Spaces and @ marks cannot be input at name beginnings.

**Selecting a scene name from the history list**

4. Use ▲ and ▼ to select User Name, and press ✔.

5. Use ▲ and ▼ to select History, and press ✔.

6. Use ▲ and ▼ to select the desired history item, and press ✔.

**NOTE**
The history list will be erased if the Factory Reset function is used.
Changing the track name of the next take recorded (Track Name)

The track name set with the following procedure will be given to the next recorded track.

1. Press 📅.

2. Use ▲ and ▼ to select REC, and press ✔.

3. Use ▲ and ▼ to select Metadata, and press ✔.

4. Use ▲ and ▼ to select Track Name, and press ✔.

5. Use ▲ and ▼ to select a track, and press ✔.

▶ Continue to one of the following procedures.

   - Editing the track name.................................................................P. 52
   - Selecting a track name from the history list .............................P. 52
6. Use ▲ and ▼ to select Edit, and press ◐.

7. Edit the track name.
   See "Character input screen" (→ P. 14) for how to input characters.

NOTE
The track name is written to the <TRACK> <NAME> metadata.

6. Use ▲ and ▼ to select History, and press ◐.

7. Use ▲ and ▼ to select the desired history item, and press ◐.

NOTE
The history list will be erased if the Factory Reset function is used.
Changing the number of the next take recorded

The number given to the next recorded take can be changed when the Home Screen is open.

1. While pressing , press .

2. Use or to increase or decrease the take number, and press .
Playback

Playing recordings

1. Press ■/II.
   ■ Playback operations
   Select take/Jump to mark: Press / ▲
   Search backward/forward: Press and hold / ▲
   Pause/resume playback: Press ■/II

   HINT
   • The longer ■ is pressed and held, the faster the speed of searching backward/forward.
   • An "Invalid Take!" message will appear if the selected take is not valid.
   • A "No Take!" message will appear if no playable take exists.
   • During playback, press ■/II to add marks that can be used for skipping. (→ P. 170)

2. Press ■ to return to the Home Screen.

NOTE
Track backgrounds will appear black.
Mixing takes

The volume and panning of each track during playback can be changed.

■ Setting faders

1. Touch [ ] on the Home Screen (→ P. 13).

2. Turn [ ] to adjust the input signal level.

■ Setting the panning

1. Press [ ].

2. Use [ ] and [ ] to select INPUT, and press [ ].

3. Use [ ] and [ ] to select PFL, and press [ ].

NOTE

Turn [ ] left until it clicks to mute the input.
5. Use ▲ and ▼ to select the desired track, and press ◐.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Setting range</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fader</td>
<td>Mute, −60.0 – +60.0 dB</td>
<td>Adjusts the input signal level.</td>
</tr>
<tr>
<td>(in Float mode)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fader</td>
<td>Mute, −48.0 – +24.0 dB</td>
<td>Adjusts the input signal level.</td>
</tr>
<tr>
<td>(in Linear mode)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pan</td>
<td>L100 – Center – R100</td>
<td>Adjusts the stereo balance of the sound.</td>
</tr>
</tbody>
</table>

6. Use ▲ and ▼ to select Pan, and press ◐.

7. Adjust the panning.

**NOTE**
- Settings are saved separately for each take and are used during playback.
- Mix settings are not saved with the take when the recorded file format is MP3.
Monitoring the playback signals of specific tracks during playback

The playback signals of specific tracks can be monitored using SOLO mode.

1. Open the Home Screen.

2. Press \( \text{播放} \) to start playback.

3. Press \( \text{播放停止} \) during playback.

4. Use \( \text{上} \) and \( \text{下} \) to select INPUT, and press \( \text{确定} \).

5. Use \( \text{上} \) and \( \text{下} \) to select PFL, and press \( \text{确定} \).

**NOTE**
SOLO mode can only be used with tracks that can be played back (indicators lit green).
6. Use ▲ and ▼ to select the track to monitor, and press ✓.
Changing the repeat playback setting

The repeat setting used during playback can be changed.

1. Press ◀.  

2. Use ◀ and ▼ to select PLAY, and press ✔.

3. Use ◀ and ▼ to select Repeat, and press ✔.

4. Use ◀ and ▼ to select the repeat mode, and press ✔.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play One (single playback)</td>
<td>Only the selected take will be played.</td>
</tr>
<tr>
<td>Play All (all playback)</td>
<td>Takes will be played back continuously from the selected one until the last one.</td>
</tr>
<tr>
<td>Repeat One (single repeat playback)</td>
<td>The selected take will be played repeatedly.</td>
</tr>
<tr>
<td>Repeat All (all repeat playback)</td>
<td>All takes in the selected folder will be played repeatedly.</td>
</tr>
</tbody>
</table>

HINT
The PLAY menu only appears during playback.
Take and folder operations

Working with takes and folders

The Finder allows the viewing of the contents of SD cards, takes and folders and the creation of project/scene folders. It also allows the setting and deletion of recording/playback folders along with viewing their information, for example.

1. Press (✓).

2. Use (▲) and (▼) to select FINDER, and press (✓).

3. Use (▲) and (▼) to select the SD card, and press (✓).

■ Editing operations

Cursor: Press (▲) / (▼)
Move down a level (next): Press (✓)
Move up a level (previous): Press (✓)
Show Option screen: Press and hold (✓)

NOTE
• When the cursor is on a take, pressing (▶) will play the selected take.
  (◀), (●) and (►) can also be used.
• A check mark appears on the playback take and recording/playback folder.

Continue to one of the following procedures.

Creating folders ................................................................. P. 61
Selecting the take recording/playback folder ..................... P. 61
Checking take marks and using them for playback .......... P. 62
Changing folder and take names ....................................... P. 62
Deleting folders and takes ................................................. P. 62
Emptying the TRASH/FALSE TAKE folders .................... P. 63
Creating folders
Folders can be created inside the currently selected SD card/folder.

4. Use ▲ and ▼ to select
   New Folder, and press ✓.

5. Edit the folder name.
   See "Character input screen" (→ P. 14) for how to input characters.

NOTE
• The folder created will be set as the recording folder.
• The name of the folder created is written to the <PROJECT> or <SCENE> metadata of the recorded take.
• Spaces and @ marks cannot be input at name beginnings.

Selecting the take recording/playback folder
Use this procedure to select the folder that contains the take to be played back or the folder to use for recording takes and return to the Home Screen.

4. Press and hold ✓ to open the Option screen.

5. Use ▲ and ▼ to select
   Select, and press ✓.

NOTE
• Select a folder or take before pressing and holding ✓ to open the Option screen.
• The first take inside the selected SD card or folder will be set as the playback take.
### Changing folder and take names

4. Press and hold ✔ to open the Option screen.

5. Use ▲ and ▼ to select Rename, and press ✔.

6. Edit the folder/take name.
   See "Character input screen" (→ P. 14) for how to input characters.

   **NOTE**
   - The edited name of the folder/take is written to the <PROJECT> or <SCENE> metadata.
   - Spaces and @ marks cannot be input at name beginnings.

### Checking take marks and using them for playback

A list of the marks in a recorded take can be shown.

4. Press and hold ✔ to open the Option screen.

5. Use ▲ and ▼ to select Mark List, and press ✔.

6. Use ▲ and ▼ to select a mark, and press ✔.
   The Home Screen will reopen, and playback will start from the mark.

   ![Mark List](image)
Deleting folders and takes

4. Press and hold ✔️ to open the Option screen.

5. Use 🔧 and 🔧 to select Delete, and press ✔️.

6. Use 🔧 and 🔧 to select the folder/take to delete, and press ✔️.
   Press 🕒 to cancel deletion.

7. Press and hold ✔️.

8. Use 🔧 and 🔧 to select Execute, and press ✔️.

NOTE

Press 🚧 to select/deselect all the folders and takes that are currently shown.

• Deleted folders and takes are not immediately erased from the SD card. They are moved to the TRASH folder.
• Deleting folders and takes in the TRASH folder will completely erase their data.
Checking folder and take information

4. Press and hold 🔄 to open the Option screen.

5. Use ◀ and ▶ to select
   Info, and press 🔄.

SD card selected
Free: Open space
Size: Card capacity
Remain: Remaining recording time

Folder selected
Date: Date
Time: Time

Take selected
TC: Timecode
FPS: Timecode frame rate
Len: Take recording length
Fmt: Take sample format
Date: Date
Time: Time
Size: Take size
4. Use ▲ and ▼ to select TRASH or FALSE TAKE.

5. Press and hold ✓.

6. Use ▲ and ▼ to select Empty, and press ✓.

7. Use ▲ and ▼ to select Execute, and press ✓.

**NOTE**
- Emptying the TRASH folder will completely erase the data in it.
- Emptying the FALSE TAKE folder does not immediately erase its data from the SD card. The data is moved to the TRASH folder.
Overview of metadata (take information) stored in files

The \textbf{F6} writes a variety of information (metadata) to files during recording.
When these files are read by an application that supports metadata, the saved information can be checked and used.

\textbf{HINT}

- Metadata is data that contains information related to other data. The \textbf{F6} saves scene names and take numbers, for example, as metadata in audio files.
- A chunk is a unit that contains multiple data in a single block.
- To use BEXT and iXML chunk metadata, an application that supports both data formats is necessary.

\textbf{WAV file metadata}

The metadata saved in files recorded by the \textbf{F6} in WAV format is collected in BEXT (Broadcast Audio Extension) and iXML chunks.
For details about the metadata saved in these chunks, see "Metadata contained in BEXT chunks in WAV files" (→ P. 188), "Metadata contained in iXML chunks in WAV files" (→ P. 189).

\textbf{MP3 file metadata}

The metadata saved in files recorded by the \textbf{F6} in MP3 format is written as ID3v1 tags.
For information about the ID3 fields and formats saved as metadata, see "Metadata and ID3 fields contained in MP3 files" (→ P. 191).

\textbf{HINT}

- MP3 files conform to the MPEG-1 Layer III standard.
- MP3 metadata cannot be edited.
Checking and editing take metadata

1. Press 🎥.

2. Use ▲ and ▼ to select FINDER, and press ☑.

3. Use ▲ and ▼ to select an SD card, and press ☑.

4. Use ▲ and ▼ to select a folder, and press ☑.

5. Use ▲ and ▼ to select a take, and press ☑.
   This opens the Option screen. See "Take and folder operations" for how to use the Finder (→ P. 60).

6. Use ▲ and ▼ to select Metadata Edit, and press ☑.
Continue to one of the following procedures.

- Checking and editing notes ........................................... P. 68
- Selecting notes from the history list ............................. P. 69
- Checking and editing scene names ................................. P. 69
- Selecting a scene name from the history list ................. P. 70
- Checking and editing take names ................................. P. 71
- Circling takes .............................................................. P. 72
- Changing tape names .................................................. P. 72
- Changing project names .............................................. P. 73
- Checking and editing track names ............................... P. 73
- Selecting a track name from the history list ................ P. 74

### Checking and editing notes

**7.** Use ▲ and ▼ to select Note, and press ✔.

**8.** Use ▲ and ▼ to select Edit, and press ✔.

**9.** Edit the note.

See "Character input screen" (→ P. 14) for how to input characters.

---

**NOTE**

The contents of this note is written to the <NOTE> metadata.
**Selecting notes from the history list**

7. Use ▲ and ▼ to select Note, and press ◁.

8. Use ▲ and ▼ to select History, and press ◁.

9. Use ▲ and ▼ to select the desired history item, and press ◁.

**Checking and editing scene names**

7. Use ▲ and ▼ to select Scene/Take, and press ◁.

8. Use ▲ and ▼ to select Scene, and press ◁.

9. Use ▲ and ▼ to select Edit, and press ◁.

**NOTE**
The history list will be erased if the Factory Reset function is used.
10. Edit the scene name.
   See "Character input screen" (→ P. 14) for how to input characters.

NOTE
The scene name is written to the <SCENE> metadata.

Selecting a scene name from the history list

7. Use ▲ and ▼ to select Scene/Take, and press OK.

8. Use ▲ and ▼ to select Scene, and press OK.

9. Use ▲ and ▼ to select History, and press OK.

10. Use ▲ and ▼ to select the History item to use, and press OK.

NOTE
The history list will be erased if the Factory Reset function is used.
7. Use \(\text{▲} \) and \(\text{▼}\) to select Scene/Take, and press ☑.

8. Use \(\text{▲} \) and \(\text{▼}\) to select Take, and press ☑.

9. Change the take number.

10. When done changing, use \(\text{▲} \) and \(\text{▼}\) to select Enter, and press ☑.

**Checking and editing take numbers**

**Editing operations**

Move cursor or change value: Press \(\text{▲} / \text{▼}\).

Select parameter to change: Press ☑.

**HINT**

This can be set from 1 to 999.

**NOTE**

The take number is written to the <TAKE> metadata.
**Circling takes**

An @ mark can be added to the beginning of the name of the best take to make it stand out. This is called a "circled take".

7. Use \( \text{▲} \) and \( \text{▼} \) to select Circle, and press \( \text{OK} \).

8. Use \( \text{▲} \) and \( \text{▼} \) to select Circled, and press \( \text{OK} \).

**NOTE**

- To clear a circle, select Not Circled and press \( \text{OK} \).
- This circled status is written to the <CIRCLE> metadata.

---

**Changing tape names**

7. Use \( \text{▲} \) and \( \text{▼} \) to select Tape Name, and press \( \text{OK} \).

8. Edit the folder (tape) name. See "Character input screen" (→ P. 14) for how to input characters.

**NOTE**

- The folder (tape) name is written to the <TAPE> metadata.
- The folder (tape) name used immediately after recording is the name of the folder in which the take was recorded.
### Changing project names

7. Use ✈️ and ⬇️ to select Project Name, and press ✔️.

8. Edit the project name.
   See "Character input screen" (→ P. 14) for how to input characters.

   **NOTE**
   - The project name is written to the <PROJECT> metadata.
   - The project name used immediately after recording is the name of the highest level folder (inside the SD card root directory) that contains the folder in which the take was recorded.

### Checking and editing the track names

7. Use ✈️ and ⬇️ to select Track Name, and press ✔️.

8. Use ✈️ and ⬇️ to select a track, and press ✔️.

9. Use ✈️ and ⬇️ to select Edit, and press ✔️.
10. Edit the track name.
   See "Character input screen" (→ P. 14) for how to input characters.

**NOTE**
The track name is written to the <TRACK> <NAME> metadata.

---

**Selecting a track name from the history list**

7. Use ▲ and ▼ to select Track Name, and press ✓.

8. Use ▲ and ▼ to select a track, and press ✓.

9. Use ▲ and ▼ to select History, and press ✓.
10. Use ▲ and ▼ to select the desired history, and press ✅.

NOTE
The history list will be erased if the Factory Reset function is used.
Writing a sound report

A sound report includes information about recording times and takes. Reports can be written as CSV format files (F6_[folder name].CSV). Comments written in sound reports can also be edited.

1. Press 

2. Use ▲ and ▼ to select FINDER, and press 

3. Use ▲ and ▼ to select the folder or SD card desired for sound report creation, and press and hold 

4. Use ▲ and ▼ to select Sound Report, and press 

Continue to one of the following procedures.

- Writing sound reports .................................................... P. 77
- Editing comments ................................................................. P. 77
- Selecting comments from the history list ....................... P. 78
5. Use ▲ and ▼ to select Info, and press ☑.

6. Use ▲ and ▼ to select Edit, and press ☑.

7. Edit the comment.

See "Character input screen" (→ P. 14) for how to input characters.

---

**Writing sound reports**

5. Use ▲ and ▼ to select Create, and press ☑.

6. Use ▲ and ▼ to select Execute, and press ☑.

This writes the sound report inside the selected SD card or folder.

---

**Editing comments**

5. Use ▲ and ▼ to select Info, and press ☑.

6. Use ▲ and ▼ to select Edit, and press ☑.

---

**NOTE**

- Only information about takes in the folder or SD card is written in the sound report.
- Be careful because a sound report file with the same name will be overwritten.
Selecting comments from the history list

5. Use ▲ and ▼ to select Info, and press ✔.

6. Use ▲ and ▼ to select History, and press ✔.

7. Use ▲ and ▼ to select the desired history item, and press ✔.

NOTE
The history list will be erased if the Factory Reset function is used.
Input settings

Adjusting the input signal monitoring balance

The volume of each track can be adjusted when monitoring input signals.

1. Open the Home Screen (→ P. 13).

2. Use to adjust the faders.

HINT
The fader setting range depends on the recording mode. In Float mode, it is muted and −60.0 to +60.0 dB. In Linear mode, it is muted and −48.0 to +24.0 dB.

NOTE
• Mix settings are saved separately for each recorded take and can be changed during playback (→ P. 55).
• Mix settings are not saved with the take when the recorded file format is MP3.
Monitoring the input signals of specified tracks

The input signals of specified tracks can be monitored. Even tracks that have not been set to record can be input to the PFL screen and their input sounds monitored. This is convenient when using tracks as return inputs. Various settings can be made for selected tracks.

1. Press [ ] when the Home Screen is open.
   The PFL screen for the track that was last opened opens, and the status indicator lights orange. Only the input sound of the track show can be monitored through headphones.

   ![Parameter Table]

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>This sets the input source.</td>
</tr>
<tr>
<td>Trim</td>
<td>This sets the input level.</td>
</tr>
<tr>
<td>HPF/Limiter</td>
<td>This sets the high pass filter and limiter.</td>
</tr>
<tr>
<td>Phase/Delay</td>
<td>This sets the phase reversal and delay.</td>
</tr>
<tr>
<td>Pan</td>
<td>This sets the panning.</td>
</tr>
<tr>
<td>Monitor</td>
<td>This sets the monitoring volume on the PFL screen.</td>
</tr>
</tbody>
</table>

   **NOTE**
   This does not change the signals output from line outputs.

   **HINT**
   - Use [ ] and [ ] to select parameters and change setting values.
   - When the cursor is on the topmost track number, press [ ] to show the next track.

2. Press [ ]
   This opens the Home Screen.

   ![Diagram]
Setting the input source

The input source and phantom power on/off status can be set for each track.

1. Press 🔴.

2. Use ▲ and ▼ to select INPUT, and press ✓.

3. Use ▲ and ▼ to select PFL, and press ✓.

4. Use ▲ and ▼ to select a track, and press ✓.

5. Use ▲ and ▼ to select Source, and press ✓.

6. Use ▲ and ▼ to select the input source, and press ✓.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mic</td>
<td>Use when connecting a mic or other equipment with a low input level.</td>
</tr>
<tr>
<td>Mic (PH)</td>
<td>Use for mic level with phantom power.</td>
</tr>
<tr>
<td>Line</td>
<td>Use when connecting line level equipment.</td>
</tr>
<tr>
<td></td>
<td>The input level will be reduced 20 dB compared to when Mic is selected.</td>
</tr>
<tr>
<td>Line (PH)</td>
<td>Use this setting for line level with phantom power.</td>
</tr>
<tr>
<td>USB 1–4</td>
<td>When AIF with Rec (→ P. 143) is set to On, computer output signals are treated as input signals</td>
</tr>
</tbody>
</table>

**HINT**

For phantom power voltage, see “Changing the phantom power settings” (→ P. 95).
Setting the monitoring volume on the PFL screen

On the PFL screen, the monitoring sound can be set to be either pre-fader listening (PFL) or fader solo (SOLO).

1. Press 🛠️.

2. Use ▲ and ▼ to select INPUT, and press ✔️.

3. Use ▲ and ▼ to select PFL, and press ✔️.

4. Use ▲ and ▼ to select a track, and press ✔️.

5. Use ▲ and ▼ to select Monitor, and press ✔️.

6. Use ▲ and ▼ to select the mode, and press ✔️.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFL</td>
<td>On the PFL screen, monitor the pre-fader sound.</td>
</tr>
<tr>
<td>SOLO</td>
<td>On the PFL screen, monitor the post-fader sound.</td>
</tr>
</tbody>
</table>

**NOTE**

- When the PFL screen is open during playback, the monitoring sound will be post-fader (SOLO) regardless of the setting.
- The pre-fader and post-fader monitoring positions depend on the set recording mode. See the block diagrams for details about the positions (→ “Block diagrams” on P. 193).
Cutting low-frequency noise

The high pass filter can cut low frequencies to reduce the sound of wind, vocal pops and other noise.

1. Press 🡜.

2. Use ▲ and ▼ to select INPUT, and press ✓.

3. Use ▲ and ▼ to select PFL, and press ✓.

4. Use ▲ and ▼ to select a track, and press ✓.

5. Use ▲ and ▼ to select HPF/Limiter, and press ✓.

6. Use ▲ and ▼ to select HPF, and press ✓.
7. Use ▲ and ▼ to select the desired cutoff frequency, and press ✔.

**HINT**
This can be set to Off or between 10 and 240 Hz.
Input limiter

The limiter can prevent distortion by reducing input signals that have excessively high levels.

When the limiter is ON, if the input signal level exceeds the set threshold value, the input signal level will be suppressed to prevent the sound from distorting. The amount of time after the input signal exceeds the threshold until compression of the output signal is maximized is called the “attack time”. The amount of time after the input signal goes below the threshold until the limiter stops compressing the signal is called the “release time”. Change these two to adjust the audio quality.

1. Press 📻.

2. Use ↑ and ↓ to select INPUT, and press ✔.

3. Use ↑ and ↓ to select PFL, and press ✔.

4. Use ↑ and ↓ to select a track, and press ✔.
5. Use ▲ and ▼ to select HPF/Limiter, and press ◐.

6. Use ▲ and ▼ to select Limiter, and press ◐.

▶ Continue to one of the following procedures.

- Using the limiter ................................................................. P. 88
- Setting the type ............................................................... P. 90
- Setting the threshold ...................................................... P. 90
- Setting the attack time .................................................... P. 91
- Setting the release time .................................................. P. 91
- Setting the target level .................................................... P. 92

7. Use ▲ and ▼ to select On/Off, and press ◐.

8. Use ▲ and ▼ to select the setting, and press ◐.
### Setting Explanation

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>This disables the limiter.</td>
</tr>
<tr>
<td>On (Normal)</td>
<td>This applies an ordinary limiter. The ratio is 20:1.</td>
</tr>
<tr>
<td>On (Advanced)</td>
<td>By detecting the maximum level in advance, this optimized limiter prevents distortion even more than ordinary limiter operation. The ratio is ∞:1, providing increased internal headroom.</td>
</tr>
</tbody>
</table>

**NOTE**

- When set to On (Advanced), the Sample Rate cannot be set to 192 kHz.
- Moreover, when the Sample Rate is set to 192 kHz, the On (Advanced) setting cannot be selected.

When set to On (Advanced), the input latency of the **F6** increases 1 ms. When monitoring sounds being recorded with a mic in real-time, increased latency can cause interference between the sound being recorded that is transmitted through the air and the delayed monitored sound, possibly making accurate monitoring difficult.
### Setting the type

7. Use ▲ and ▼ to select Type, and press ☑.

8. Use ▲ and ▼ to select the type, and press ☑.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Knee</td>
<td>Only peaks that exceed the threshold are attenuated. There is no effect below the threshold.</td>
</tr>
<tr>
<td>Soft Knee</td>
<td>The limiter gradually affects the signal about 6 dB below the threshold for a gentler effect.</td>
</tr>
</tbody>
</table>

**NOTE**

This setting becomes available when On/Off is set to On (Normal).

### Setting the threshold

7. Use ▲ and ▼ to select Threshold, and press ☑.

8. Use ▲ and ▼ to adjust the setting, and press ☑.

**HINT**

This can be set from −16 to −2 dBFS.

**NOTE**

This setting becomes available when On/Off is set to On (Normal).
**Setting the attack time**
This sets the amount of time until compression starts after the input signal exceeds the threshold.

7. Use ▲ and ▼ to select *Attack Time*, and press ✓.

8. Use ▲ and ▼ to adjust the time, and press ✓.

**HINT**
This can be set from 1 to 4 ms.

**NOTE**
This setting becomes available when *On/Off* is set to *On (Normal)*.

---

**Setting the release time**
This sets the amount of time until compression stops after the input signal goes below the threshold.


8. Use ▲ and ▼ to adjust the time, and press ✓.

**HINT**
Limiter operation is linked for tracks that have stereo link or MS stereo link enabled. If the signal for either linked channel reaches the threshold, the limiter will operate on both tracks.

**NOTE**
This setting becomes available when *On/Off* is set to *On (Normal)*.
Setting the target level
When the limiter On/Off setting is set to On (Advanced), use this to set the target output level for the signal.

7. Use ⬆ and ⬇ to select Target Level, and press ✓.

8. Use ⬆ and ⬇ to adjust the setting, and press ✓.

HINT
• This can be set from −16 to 0 dBFS.
• After a signal passes through the limiter, it will not exceed the set target level value.

NOTE
This setting becomes available when On/Off is set to On (Advanced).
Inverting the input phase

The phase of the input signal can be inverted. This is useful when sounds cancel each other out due to mic settings.

1. Press 🅰️.

2. Use ⬆️ and ⬇️ to select INPUT, and press ✔️.

3. Use ⬆️ and ⬇️ to select PFL, and press ✔️.

4. Use ⬆️ and ⬇️ to select a track, and press ✔️.

5. Use ⬆️ and ⬇️ to select Phase/Delay, and press ✔️.
6. Use ‡ and ▼ to select Phase Invert, and press ✔.

7. Use ‡ and ▼ to select On, and press ✔.
Changing the phantom power settings

The **F6** can provide phantom power. The voltage can be set to +24V or +48 V and it can be turned on/off for each input separately.

**HINT**
Phantom power is a function that supplies power to devices that require an external power supply, including some condenser mics. The standard power is +48 V, but some devices can operate with lower voltages.

**NOTE**
Do not use this function with devices that are not compatible with phantom power. Doing so could damage the device.

1. Press \(\text{\textcircled{}}\).
2. Use \(\uparrow\) and \(\downarrow\) to select INPUT, and press \(\text{\checkmark}\).
3. Use \(\uparrow\) and \(\downarrow\) to select Phant-om Settings, and press \(\text{\checkmark}\).

▶ Continue to one of the following procedures.

- Setting the voltage ................................................................. P. 96
- Disabling phantom power during playback ......................... P. 96
- Using phantom power ............................................................ P. 81
### Setting the voltage

4. Use ▲ and ▼ to select Voltage, and press □.

5. Use ▲ and ▼ to select the voltage, and press □.

**HINT**

When using mics and other equipment that can operate with voltages less than +48 V, selecting the lower voltage can reduce the power consumption.

### Disabling phantom power during playback

4. Use ▲ and ▼ to select Power Saving, and press □.

5. Use ▲ and ▼ to select On (PH off during playback), and press □.

**Setting** | **Explanation**
--- | ---
Off | Phantom power is supplied even during playback.
On (PH off during playback) | Phantom power is not supplied during playback. This can reduce the power consumption.

**HINT**

If mics do not need phantom power during playback, disabling it can reduce power consumption.

**NOTE**

This setting affects all tracks.
Applying delay to input signals

If there are differences in the timing of input sounds, use this function to correct them when recording.

1. Press \(\text{ }\).

2. Use \(\text{ }\) and \(\text{ }\) to select INPUT, and press \(\text{ }\).

3. Use \(\text{ }\) and \(\text{ }\) to select PFL, and press \(\text{ }\).

4. Use \(\text{ }\) and \(\text{ }\) to select a track, and press \(\text{ }\).

5. Use \(\text{ }\) and \(\text{ }\) to select Phase/Delay, and press \(\text{ }\).

6. Use \(\text{ }\) and \(\text{ }\) to select Delay, and press \(\text{ }\).
7. Use ◀ and ▶ to adjust the delay time, and press ✔.

**HINT**
This can be set from 0 to 30.0 ms.

**NOTE**
When Sample Rate is set to 192 kHz, Delay is disabled.
Linking inputs as a stereo pair

By enabling the stereo link for tracks 1/2, 3/4 or 5/6, the corresponding Inputs (1/2, 3/4 or 5/6) can be handled as a stereo pair. When linked, Input 1, 3 or 5 will be the left channel and Input 2, 4 or 6 will be the right channel.

MS stereo format overview

This method takes input from a directional mid mic, which captures sound in the center, and a bidirectional side mic, which captures sounds from the left and right, and converts it to stereo. The stereo width can be changed as desired by adjusting the side mic level. Since this method can capture a wide stereo image, it is ideal for recording large open spaces with numerous sound sources, including orchestras, live concerts and soundscapes. This technique is also extremely effective when you want to adjust room ambience. Since it offers a high degree of freedom, it is used not only in studios but also for a wide range of recording, even for rehearsals and live performances.

1. Press 🎵.
2. Use ▲ and ▼ to select INPUT, and press ✅.
3. Use ▲ and ▼ to select Link Settings, and press ✅.
4. Use ▲ and ▼ to select Input Link, and press ◀.

### Setting stereo links

**Stereo**

Use ▲ and ▼ to select Stereo, and press ◀.

**MS**

Use ▲ and ▼ to select MS, and press ◀.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stereo</td>
<td>When stereo-linked, inputs are handled normally.</td>
</tr>
<tr>
<td>MS</td>
<td>When stereo-linked, signals from mid-side mics are converted to ordinary stereo.</td>
</tr>
</tbody>
</table>

**NOTE**

- When stereo-linked, odd tracks are handled as left and even tracks as right channels.
- When MS stereo-linked, odd tracks are handled as mid signals and even tracks as side signals.

**HINT**

When MS stereo-linked, the method to balance mid and side is according to the recording mode as follows.

- Float (32bit): Use ◀ for each track to adjust the mid/side balance.
- Not Float (32bit): Use the input level for each track to adjust the mid/side balance. (See “Adjusting input levels → P. 28.”)
Adjusting multiple track input levels together

The input levels of multiple tracks can be linked and adjusted at the same time.

1. Press 🎤.

2. Use ▲ and ▼ to select INPUT, and press ✔.

3. Use ▲ and ▼ to select Link Settings, and press ✔.

4. Use ▲ and ▼ to select Trim Link, and press ✔.

5. Use ▲ and ▼ to select a track to link, and press ✔.

NOTE
• A track cannot be in more than one group at a time.
• The input levels of tracks set to MS stereo link will also be linked if those tracks are put into groups.
Changing the automatic mixing setting

When using multiple mics to capture audio during a meeting, for example, automatically attenuating the inputs of mics that are not in active use provides the following benefits.

- The likelihood of feedback is reduced.
- Background noise, including fans and crowds, is suppressed to a certain level regardless of the number of people.
- Sound quality degradation due to phase differences caused by variations in the distances of multiple mics is reduced.

1. Press 🎤.

2. Use ↖ and ↙ to select INPUT, and press ✔.

3. Use ↖ and ↙ to select Auto Mix, and press ✔.

4. Use ↖ and ↙ to select a track, and press ✔.

5. Use ↖ and ↙ to select On, and press ✔.
NOTE

- The following functions and settings cannot be used with this function.
  - The sampling rate cannot be set to 192 kHz.
  - The Ambisonic format cannot be set to any value other than Off.
- When monitoring sounds being recorded with a mic in real-time, increased latency can cause interference between the sound being recorded that is transmitted through the air and the delayed monitored sound, possibly making accurate monitoring difficult.
Setting the Ambisonic format

By connecting mics that can output Ambisonic A-format signals to Inputs 1–4, audio can be converted to Ambisonic B-format and recorded.

1. Press 📷.

2. Use ↑ and ↓ to select INPUT, and press ✓.

3. Use ↑ and ↓ to select Link Settings, and press ✓.

4. Use ↑ and ↓ to select Input Link, and press ✓.

5. Use ↑ and ↓ to move the cursor to Ambisonics, and press ✓.
6. Use ▲ and ▼ to select Settings, and press ☑. 

7. Use ▲ and ▼ to select Format, and press ☑. 

8. Use ▲ and ▼ to select the format, and press ☑.

**FuMa**
This converts the signals from Inputs 1–4 to the Ambisonic FuMa B-format, and saves them as a 4-channel polyphonic file. 

**AmbiX**
This converts the signals from Inputs 1–4 to the Ambisonic AmbiX B-format, and saves them as a 4-channel polyphonic file.
Ambisonics A
This saves the signals from Inputs 1–4 as a 4-channel polyphonic file without converting them to an Ambisonic B-format. The monitoring signal is converted to Ambisonic B-format and then to an ordinary stereo signal.

Format: Ambisonics A

Input 1-4 → Trim → Track 1-4

Ambisonics B-format converter → Ambisonics Stereo monitor converter → Track L/R

NOTE

• The sampling rate can only be set to 192 kHz when Ambisonic Mode is Off.
• Ambisonic files are saved as 4-channel polyphonic files, not as mono or stereo files.
• The following parameters cannot be set for tracks using Ambisonic Mode input.
  – Phase Invert
  – Delay
  – Pan
  – Input Link
  – Trim Link
• Files recorded when Ambisonic format is not off will play back as Ambisonic audio sources rather than ordinary 4-channel polyphonic files. For this reason, these tracks cannot be the panned or muted during playback.
• This cannot be used with the Auto Mix function.

HINT

• Ambisonic can also be set during use as an audio interface (Multi Track).
• Even when Ambisonic format is not Off, PFL buttons can be selected to monitor their track input sounds. When Monitor is set to PFL, sounds can be monitored before they are converted to Ambisonic B-format. When PFL mode is set to SOLO, sounds can be monitored after they are converted to Ambisonic B-format.
• The following parameters that can be set on the PFL screen are linked for Ambisonic input tracks.
  – Source
  – Trim
  – HPF
  – Limiter
  – Phantom
  – Fader
  – PFL Monitor
Setting the mic position used for Ambisonic recording

By setting the mic orientation used during Ambisonic recording as an F6 parameter, proper positioning can be maintained when converting to Ambisonic B format if the mic orientation is changed from upright, upside down or horizontal.

1. Press  

2. Use  and  to select INPUT, and press  

3. Use  and  to select Link Settings, and press  

4. Use  and  to select Input Link, and press  

5. Use  and  to select Ambisonics Settings, and press  

6. Use ✈ and ✦ to select Mic Position, and press ✗.

7. Use ✈ and ✦ to select the mic orientation, and press ✗.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upright</td>
<td>Use this setting to record with the mic upright.</td>
</tr>
<tr>
<td>Upside Down</td>
<td>Use this setting to record with the mic upside down.</td>
</tr>
<tr>
<td>Endfire</td>
<td>Use this setting to record with the mic oriented horizontally.</td>
</tr>
</tbody>
</table>

**HINT**
- Using the mic upright is recommended for Ambisonic recording in order to minimize reflections from the floor and the mic itself.
- When it is difficult to use the mic in an upright orientation, you can place it upside down or pointing forward and change the Mic Position setting accordingly.

**NOTE**
If this setting and the mic position do not match, sound positioning will not be properly re-created during conversion to Ambisonic B format.
Output settings

Setting signals sent to the headphone output

Signals sent to the headphone output can be set to either prefader or postfader for each track. Saving 10 setting combinations (Setting 1–Setting 10) it is possible.

1. Press \( \text{[ ]} \).

2. Use \( \text{▲} \) and \( \text{▼} \) to select \( \text{OUTPUT} \), and press \( \text{[ ]} \).

3. Use \( \text{▲} \) and \( \text{▼} \) to select \( \text{Headphone Out} \), and press \( \text{[ ]} \).

4. Use \( \text{▲} \) and \( \text{▼} \) to select \( \text{Routing} \), and press \( \text{[ ]} \).

5. Use \( \text{→} \) to select the desired setting.

**NOTE**

Use \( \text{→} \) on any screen to cycle through Settings 1–10.
Continue to one of the following procedures.

- Setting the routing ................................................. P. 110
- Using mono headphone output ............................... P. 110
- Monitoring mid-side stereo signals......................... P. 111

**Setting the routing**

6. Use ▲ and ▼ to select the tracks/outputs for headphone routing and press ✔.

   ![Setting 1 diagram]

   - Mid-side stereo monitoring
   - Set all tracks 1–6 to pre-fader (cancel MS)
   - Press to cycle through settings
     - Change tracks 1–6 to post-fader (cancel others)
     - Change L/R to post-fader (cancel others)
     - Change Line to post-fader (cancel others)
     - Change U1–U4 to post-fader (cancel others)

   - Tracks routed to left headphone channel
   - Tracks routed to right headphone channel
   - Mono mix
   - Clear all settings
   - Set to post-fader
   - Set to pre-fader
   - Off

**HINT**

Press ENTER to cycle through the options: prefader → postfader → off.

**NOTE**

- L/R and line outputs cannot be set to prefader.
- When AIF with Rec is set to On, USB track 1–4 can be assigned.
- The 1–6, L/R, line outputs and USB track 1–4 cannot be selected at the same time. Selecting one type will deselect any other.

7. Press 🔙.

**Using mono headphone output**

6. Use ▲ and ▼ to select Mono, and press ✔.

7. Press 🔙.
Monitoring mid-side stereo signals

Signals from a mid-side stereo mic can be converted to an ordinary stereo signal for monitoring.

6. Use ☐ and ☐ to select MS, and press ✓.

7. Press ☐.

NOTE
• This is disabled for tracks that have input linking set to MS.
• When mid-side stereo monitoring is enabled, the pre-fader tracks will be routed automatically to the headphone channels, with odd to the left and even to the right. In this case, the routing cannot be changed manually.
Outputting alerts through headphones

The volume can be adjusted for alerts output from headphones when, for example, recording starts and stops.

1. Press 🎧.

2. Use ▲ and ▼ to select OUTPUT, and press 🎧.

3. Use ▲ and ▼ to select Headphone Out, and press 🎧.

4. Use ▲ and ▼ to select Alert Vol, and press 🎧.

5. Use ▲ and ▼ to adjust the volume, and press 🎧.

HINT
• This can be set to Off or between −48 and −12 dBFS.
• When set to Off, no alerts will be output.

<table>
<thead>
<tr>
<th>When alerts sound</th>
<th>Sound type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining battery low</td>
<td>880Hz tone 4 times every 30 seconds</td>
</tr>
<tr>
<td>Recording starts</td>
<td>1000Hz tone 1 time</td>
</tr>
<tr>
<td>Recording stops</td>
<td>880Hz tone 2 times</td>
</tr>
<tr>
<td>Recording not possible</td>
<td>880Hz tone 3 times</td>
</tr>
</tbody>
</table>
Setting the headphone output volume curve

The volume curve used when adjusting the headphone volume knob can be set.

1. Press 🎧.

2. Use ↑ and ↓ to select OUTPUT, and press 🆙.

3. Use ↑ and ↓ to select Headphone Out, and press 🆙.

4. Use ↑ and ↓ to select Vol Curve, and press 🆙.

5. Use ↑ and ↓ to select a curve, and press 🆙.

### Setting Explanation

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>The volume will change evenly from the minimum value to the maximum value.</td>
</tr>
<tr>
<td>A Curve</td>
<td>The closer the volume is to its minimum position, the more rapidly it will change.</td>
</tr>
<tr>
<td>S Curve</td>
<td>The closer the volume is to its middle position, the more rapidly it will change.</td>
</tr>
</tbody>
</table>
Boosting headphone output to alleviate interference from recorded sound

Boosting the headphone output alleviates the interference of sound waves traveling through the air with the headphone monitoring signal, enabling more accurate monitoring of the sound being recorded.

1. Press 🎧.
2. Use ↑ and ↓ to select OUTPUT, and press ✓.
3. Use ↑ and ↓ to select Headphone Out, and press ✓.
4. Use ↑ and ↓ to select Digital Boost, and press ✓.
5. Use ↑ and ↓ to adjust the boost amount, and press ✓.

HINT
The amount of boost can be set from 0 to +24 dB.
NOTE
In situations where the sound being recorded can be heard at the head-
phone monitoring position, sound waves traveling through the air can inter-
fere with the sound heard from the headphones, altering the monitored
sound. The more the sound heard through the headphones is delayed and
the lower its volume, the greater the impact of the sound waves.
Digital Boost adds a set boost volume to the adjusted headphone volume
level, reducing the impact of the sound waves that travel through the air.
Setting the output level

The Line Out output level can be changed.

1. Press 🛎.

2. Use ▲ and ▼ to select OUTPUT, and press ☑.

3. Use ▲ and ▼ to select Line Out, and press ☑.

4. Use ▲ and ▼ to select Level, and press ☑.

5. Use ▲ and ▼ to select Line Out, and press ☑.

6. Use ▲ and ▼ to adjust the output level, and press ☑.
**HINT**
This can be set to Mute or from −48.0 to +12.0 dB

**Adjusting connected equipment levels**  
(playing test tones)

5. Use ▲ and ▼ to select the line output sine wave icon, and press ✔️ to play a test tone.

6. Press ❌ to stop test tone playback.

**HINT**

- While checking the audio level meter of the connected device, make adjustments to the input gain of that device until the audio signal level is about −6 dB.
- The test tone is a 1kHz sine wave at −6 dBFS.

**NOTE**

- See the manual of the connected device for information about its operation.
- If the automatic gain control function on the other device is on, turn it off.
- The test tone is output from both the LINE OUT and HEADPHONE jacks.
- Be careful with the volume if you are monitoring the sound with headphones, for example.
Applying delay to the output

By delaying output, timing differences for audio input into another device can be corrected.

1. Press 

2. Use 

3. Use 

4. Use 

5. Use 

HINT
This can be set from 0.0 to 10.0 frames.

NOTE
• Delays in milliseconds differ according to the frame rate of the selected timecode.
• When Sample Rate is set to 192 kHz, Output Delay is disabled.
Output Limiter

Using a limiter on the output can protect devices connected to the output jacks.

**HINT**
For details about the limiter, see “Input limiter” (→ P. 87).

1. Press 🔄.

2. Use ↑ and ↓ to select OUTPUT, and press ✓.

3. Use ↑ and ↓ to select Line Out, and press ✓.

4. Use ↑ and ↓ to select Limiter, and press ✓.

▶ Continue to one of the following procedures.

- Using the limiter .......................................................... P. 120
- Setting the type .......................................................... P. 120
- Setting the threshold ..................................................... P. 121
- Setting the attack time ................................................... P. 121
- Setting the release time ................................................ P. 122
- Linking the limiter ......................................................... P. 122
Using the limiter

5. Use ▲ and ▼ to select On/Off, and press 🔄.

6. Use ▲ and ▼ to select On, and press 🔄.

Setting the type

5. Use ▲ and ▼ to select Type, and press 🔄.

6. Use ▲ and ▼ to select the type, and press 🔄.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Knee</td>
<td>Only peaks that exceed the threshold are attenuated. There is no effect below the threshold.</td>
</tr>
<tr>
<td>Soft Knee</td>
<td>The limiter gradually affects the signal about 6 dB below the threshold for a gentler effect.</td>
</tr>
</tbody>
</table>
Setting the threshold
This sets the base level from which the limiter operates.

5. Use ▲ and ▼ to select Threshold, and press ▶.

6. Use ▲ and ▼ to adjust the setting, and press ▶.

Hint
This can be set from −16 to −2 dBFS.

Setting the attack time
This sets the amount of time until compression starts after the input signal exceeds the threshold.

5. Use ▲ and ▼ to select Attack Time, and press ▶.

6. Use ▲ and ▼ to adjust the time, and press ▶.

Hint
This can be set from 1 to 4 ms.
Setting the release time
This sets the amount of time until compression stops after the input signal goes below the threshold.

5. Use ◀ and ▶ to select Release Time, and press ✓.

6. Use ◀ and ▶ to adjust the time, and press ✓.

HINT
This can be set from 1 to 500 ms.

Linking the limiter
The line output limiters can be linked or applied independently.

5. Use ◀ and ▶ to select Link, and press ✓.

6. Use ◀ and ▶ to select Off, and press ✓.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Separate limiter operation.</td>
</tr>
<tr>
<td>On</td>
<td>Link limiter operation. If the signal for either linked signal reaches the threshold, the limiter will operate on both channels.</td>
</tr>
</tbody>
</table>
Selecting signals sent to the line outputs

The type of signal sent to the line outputs can be set to either prefader or postfader for each track.

1. Press \(\text{ \(\text{\textbullet}\)}\).

2. Use \(\text{ \(\text{\textbullet}\)}\) and \(\text{ \(\text{\textbullet}\)}\) to select OUTPUT, and press \(\text{ \(\text{\textbullet}\)}\).

3. Use \(\text{ \(\text{\textbullet}\)}\) and \(\text{ \(\text{\textbullet}\)}\) to select Line Out, and press \(\text{ \(\text{\textbullet}\)}\).

4. Use \(\text{ \(\text{\textbullet}\)}\) and \(\text{ \(\text{\textbullet}\)}\) to select Routing, and press \(\text{ \(\text{\textbullet}\)}\).

HINT
Press \(\text{ \(\text{\textbullet}\)}\) to cycle through the options: prefader → postfader → off.
NOTE
• When AIF with Rec is set to On, USB track 1–4 can be assigned.
• Tracks 1–6 can be set to prefader or postfader.
• The L/R tracks can only be set to postfader.
• Tracks 1–6, L/R, and USB 1–4 cannot be set at the same time. Selecting one type will deselect the other.
• When mid-side stereo monitoring is enabled, the pre-fader tracks will be routed automatically to the line output channels, with odd tracks to the left and even tracks to the right. In this case, the routing cannot be changed manually.

5. Press 📷.
Timecode

Timecode overview

The F6 can input and output SMPTE timecode. Timecode is time information written to data when recording video and audio. It is used for video editing, control of other devices, and synchronization of audio and video, for example.

Using timecode for editing

If video and audio data both have recorded timecode, aligning them to a timeline and synchronizing them together is easy when using nonlinear editing software for editing.

HINT

The F6 uses a high-precision oscillator that enables the generation of accurate timecode with a discrepancy of less than 0.5 frames per 24 hours.
**Connection example**
Connections like the following are possible according to application.

**Synchronizing with a video camera**
The F6 records with a mic input and transmits timecode. The F6 records the timecode that it generates itself with the audio data. The timecode received by the video camera is recorded with the video data.

**Inputting timecode**
Timecode is transmitted from the timecode generator. Both the F6 and the video camera receive timecode and record it with their audio and video data. The input timecode can also be used to synchronize the audio clock of the F6.
Setting timecode

1. Press  .

2. Use  and  to select TIMECODE, and press  .

   Continue to one of the following procedures.
   
   Setting the mode ................................................................. P. 128
   Synchronizing audio clock with external timecode .......... P. 130
   Automatically enabling internal timecode when no external timecode is input ........................................... P. 130
   Setting the user bits for internal timecode ...................... P. 130
   Setting the frame rate for internal timecode .................... P. 131
   Jamming internal timecode .............................................. P. 133
   Restarting internal timecode with a specified value ....... P. 134

<table>
<thead>
<tr>
<th>Mode</th>
<th>Use to set the timecode mode, timecode output when recording is stopped, synchronization with audio clock, and internal timecode operation when there is no external timecode input.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPS</td>
<td>Use to set the frame rate of the internal timecode.</td>
</tr>
<tr>
<td>Jam</td>
<td>Use to set jamming of the timecode input through the TIMECODE IN/OUT jack by the internal timecode. This can be used to restart the internal timecode at a chosen set value.</td>
</tr>
<tr>
<td>Ubits</td>
<td>Use to set the mode and content of user bits that can be included in timecode.</td>
</tr>
<tr>
<td>Auto Rec Delay</td>
<td>Use to set the amount of time until recording starts after timecode is received.</td>
</tr>
<tr>
<td>Start TC</td>
<td>Use to set the value used when jamming timecode starts and for calibration to increase the precision when jamming to RTC.</td>
</tr>
</tbody>
</table>
Setting the mode

The following types of settings can be made.
- Whether the F6 generates timecode or receives external timecode
- Whether timecode continues running or not when not recording

3. Use ▲ and ▼ to select Mode, and press ☑.

4. Use ▲ and ▼ to select Mode, and press ☑.

5. Use ▲ and ▼ to select the mode, and press ☑.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>No timecode will be written to the recording file. Timecode will not be output from the TIMECODE IN/OUT jack.</td>
</tr>
<tr>
<td>Int Free Run</td>
<td>Internal timecode will be generated regardless of the recording mode. The internal timecode can be set manually using the following menu items. • MENU &gt; TIMECODE &gt; Jam • MENU &gt; TIMECODE &gt; Restart</td>
</tr>
<tr>
<td>Int Rec Run</td>
<td>Internal timecode will be generated only when recording. The internal timecode can be set manually using the following menu items. • MENU &gt; TIMECODE &gt; Jam • MENU &gt; TIMECODE &gt; Restart</td>
</tr>
<tr>
<td>Int RTC Run</td>
<td>Internal timecode will be generated regardless of the recording mode. In the following situations, the internal timecode will be synchronized (jammed) with the RTC (internal clock). • At startup • When Date/Time (RTC) changed ( → P. 21) • When switching to this timecode mode</td>
</tr>
<tr>
<td>Ext</td>
<td>The internal timecode will chase the external timecode. When there is no external timecode, automatic generation of internal timecode can also be enabled. ( → P. 130)</td>
</tr>
<tr>
<td>Ext Auto Rec</td>
<td>The internal timecode will chase the external timecode. When there is no external timecode, automatic generation of internal timecode can also be enabled. ( → P. 130) Recording starts automatically when external timecode input is detected. Recording stops automatically when external timecode stops.</td>
</tr>
</tbody>
</table>
Outputting timecode only when recording
Whether or not timecode is output from the TIMECODE IN/OUT jack when recording is stopped can be set.

3. Use ▲ and ▼ to select Mode, and press  ．

4. Use ▲ and ▼ to select TC Out, and press  ．

5. Use ▲ and ▼ to select Rec Only, and press  ．

**NOTE**
- Timecode will continue to be output when recording/playback is paused.
- This cannot be set when Mode is set to Off, Ext or Ext Auto Rec.

**HINT**
Always: Timecode is always output regardless of the recorder status.
Rec Only: Timecode is output only when recording.
Synchronizing audio clock with external timecode

3. Use ▲ and ▼ to select Mode, and press ✔.

4. Use ▲ and ▼ to select Ext Audio Sync, and press ✔.

5. Use ▲ and ▼ to select On, and press ✔.

NOTE
- When there is no external timecode, the internal audio clock is enabled to preserve continuity.
- This cannot be set when Mode is set to Off, Int Free Run, Int Rec Run or Int RTC Run.

Automatically enabling internal timecode when no external timecode is input

The automatic generation of internal timecode can be enabled to preserve continuity when there is no external timecode.

3. Use ▲ and ▼ to select Mode, and press ✔.

4. Use ▲ and ▼ to select Ext Continuous, and press ✔.
5. Use ◀ and ◀ to select On, and press ✓.

NOTE
This cannot be set when Mode is set to Off, Int Free Run, Int Rec Run or Int RTC Run.

Setting the user bits for internal timecode
User bits are data that can be set for inclusion in the timecode. Up to 8 numbers (0–9) and letters (A–F) can be included. Recording date information, for example, can be useful when editing later.

Setting the user bits (Ubits) mode
3. Use ◀ and ◀ to select Ubits, and press ✓.
4. Use ◀ and ◀ to select Mode, and press ✓.
5. Use ◀ and ▶ to select the mode, and press ✔.

- **Setting the user bits (Ubits)**

3. Use ◀ and ▶ to select Ubits, and press ✔.

4. Use ◀ and ▶ to select Edit, and press ✔.

5. Edit the value.
   - Move cursor or change value:
     - Use ◀ and ▶
     - Select parameter to edit:
       - Press ✔

HINT
This can be set using numbers from 0 to 9 and letters from A to F.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>uu uu uu uu</td>
<td>These values can be set as desired on the Edit screen.</td>
</tr>
<tr>
<td>mm dd yy uu</td>
<td>The month, day and year are entered automatically in that order using the RTC setting. The &quot;uu&quot; value can be set as desired on the Edit screen.</td>
</tr>
<tr>
<td>dd mm yy uu</td>
<td>The day, month and year are entered automatically in that order using the RTC setting. The &quot;uu&quot; value can be set as desired on the Edit screen.</td>
</tr>
<tr>
<td>yy mm dd uu</td>
<td>The year, month and day are entered automatically in that order using the RTC setting. The &quot;uu&quot; value can be set as desired on the Edit screen.</td>
</tr>
</tbody>
</table>

HINT
Only "uu" items can be changed.
6. When done setting, use ▲ and ▼ to select Enter, and press ✔.

### Setting the frame rate for internal timecode

3. Use ▲ and ▼ to select FPS, and press ✔.

4. Use ▲ and ▼ to select the frame rate, and press ✔.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.976ND</td>
<td>This is the most common frame rate used with HD cameras and other high-definition video recording. The count is slower than the actual time by 0.1%.</td>
</tr>
<tr>
<td>24ND</td>
<td>This is the standard frame rate used for recording film. This is also used with HD cameras.</td>
</tr>
<tr>
<td>25ND</td>
<td>This is the frame rate for PAL video. This is used for PAL video, which is used in Europe and other regions.</td>
</tr>
<tr>
<td>29.97ND</td>
<td>This is a frame rate used for NTSC color video and HD cameras. The count is slower than the actual time by 0.1%. This is used for NTSC video, which is used in Japan, the United States and other countries.</td>
</tr>
<tr>
<td>29.97D</td>
<td>This is an adjusted frame rate that uses a drop frame to make NTSC match the actual time. This is used with video for broadcast that requires the actual time frame to be matched.</td>
</tr>
<tr>
<td>30ND</td>
<td>This is used to synchronize sound with film that is being transferred to NTSC video. This is the standard frame rate used for black-and-white television in Japan, the United States and other countries.</td>
</tr>
<tr>
<td>30D</td>
<td>This rate is used for special applications. This synchronizes at 29.97 fps drop frame with film sound to be transferred to NTSC. The count is faster than the actual time by 0.1%.</td>
</tr>
</tbody>
</table>

**NOTE**
Frame rates must be set in advance to match on devices used for all video and audio data.
Jamming internal timecode

Timecode input through the TIMECODE IN jack is used to set internal timecode

3. Use ▲ and ▼ to select Jam, and press ✓.

4. Use ▲ and ▼ to select Jam, and press ✓.

Restarting internal timecode with a specified value

3. Use ▲ and ▼ to select Jam, and press ✓.

4. Use ▲ and ▼ to select Restart, and press ✓.

5. Set the restart value.

   Move cursor or change value:

   Use ▲ and ▼

   Select parameter to edit:

   Press ▲
6. Use ▲ and ▼ to select Restart, and press ✓.
Setting the automatic timecode recording delay

If set to record automatically when external timecode is received, unnecessary recording could occur if timecode is received for a brief amount time. In order to prevent this, the amount of time until recording starts after timecode is received can be set.

1. Press 🎥.

2. Use ▲ and ▼ to select TIMECODE, and press 🎥.

3. Use ▲ and ▼ to select Auto Rec Delay, and press 🎥.

4. Use ▲ and ▼ to adjust the time, and press 🎥.

**HINT**
This can be set from 0.0 to 8.0 s.
Setting timecode initialization used at startup

When the **F6** is turned off, the internal timecode stops, so the timecode is automatically initialized (jammed) during startup. The value that is used for jamming at that time can be set.

1. Press 🎥.

2. Use ⬆️ and ⬇️ to select **TIMECODE**, and press ✔️.

3. Use ⬆️ and ⬇️ to select **Start TC**, and press ✔️.

4. Use ⬆️ and ⬇️ to select **Mode**, and press ✔️.

5. Use ⬆️ and ⬇️ to set how timecode is initialized, and press ✔️.

▶️ Continue to one of the following procedures.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restart Time</td>
<td>When the <strong>F6</strong> starts, the value set by Restart (→ P. 134) is used to jam the internal timecode.</td>
</tr>
<tr>
<td>RTC</td>
<td>When the <strong>F6</strong> starts, its timecode is restored from the timecode when the power was turned off and advanced by the elapsed time using the Date/Time (RTC) setting (→ P. 21). Since RTC is less precise than internal timecode, discrepancies will occur.</td>
</tr>
</tbody>
</table>

Setting how timecode is initialized at startup
Correcting timecode errors after the power has been turned off

When the Start TC Mode is set to RTC, timecode precision will decrease if the power is turned off. This function can be used to improve precision to almost 0.2 ppm even if the power is turned off.

4. Use ▲ and ▼ to select RTC TC Calib, and press ‟。

5. Use ▲ and ▼ to select Execute, and press ‟.

6. Calibration completes.

7. To cancel calibration, press ‟. Then, use ▲ and ▼ to select Exit, and press ‟.

NOTE
- The F8 is calibrated before being shipped new from the factory.
- After calibrating once, the result will be retained.
- If the F8 is moved to and used in an extremely hot or cold location, timecode precision could change slightly when the power is turned off. In such cases, we recommend calibrating it again.
- Calibration is not possible when AIF with Rec is set to On.
- Calibration is only possible when Start TC Mode is set to RTC.
- Calibration is not possible when the FRC-8 is connected.
Using USB functions

Exchanging data with a computer

By connecting with a computer, data on the cards can be checked and copied.

■ Connecting

1. Press 🔄.

2. Use ▲ and ▼ to select SYSTEM, and press ✔.

3. Use ▲ and ▼ to select USB, and press ✔.

4. Use ▲ and ▼ to select SD Card Reader, and press ✔.

5. Use a USB cable to connect the 📦 and the computer.

NOTE
Use a USB cable that supports data transfer.
Disconnecting

1. Disconnect on the computer.
   Windows:
   Select F6 with "Safely Remove Hardware".
   macOS:
   Drag the F6 icon to the Trash and drop it.

   **NOTE**
   Always conduct computer disconnection procedures before removing the USB cable.

2. Disconnect the cable from the computer and the F6, and press ．
Using as an audio interface

**F6** input signals can be input directly to a computer or iOS device, and playback signals on a computer or iOS device can be output from the **F6**.

### Connecting

1. Press ➕.

2. Use ▲ and ▼ to select **SYSTEM**, and press ✔.

3. Use ▲ and ▼ to select **USB**, and press ✔.

4. Use ▲ and ▼ to select **Audio Interface**, and press ✔.

5. Use ▲ and ▼ to select the mode and connected device, and press ✔.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stereo Mix (PC/Mac)</td>
<td>This is a 2-in/2-out connection mode for Mac/Windows and sends tracks 1–6 as a stereo mix.</td>
</tr>
<tr>
<td>Stereo Mix (iPad)</td>
<td>This is a 2-in/2-out connection mode for iOS devices and sends tracks 1–6 as a stereo mix.</td>
</tr>
<tr>
<td>Multi Track (PC/Mac)</td>
<td>This is a 6-in/4-out connection mode for Mac/Windows and sends tracks 1–6 as separate signals (cannot be used with iOS devices). A driver is necessary for use with Windows. Download the driver from the ZOOM website (zoomcorp.com).</td>
</tr>
</tbody>
</table>
6. Use a USB cable to connect the **F6** with the computer or iOS device.

![USB (Type-C)](image)

**NOTE**
Use a USB cable that supports data transfer.

---

■ Disconnecting

1. Press 

2. Use \( \uparrow \) and \( \downarrow \) to select Exit, and press 

3. Use \( \uparrow \) and \( \downarrow \) to select Exit, and press 

4. Disconnect the cable from the computer or iOS device and the **F6**.
Using SD card recording and audio interface functions at the same time

In addition to SD card recording, a computer can also be used to record a backup.

Connecting

1. Press ( ).

2. Use ▲ and ▼ to select SYSTEM, and press ✔.

3. Use ▲ and ▼ to select USB, and press ✔.

4. Use ▲ and ▼ to select AIF with Rec, and press ✔.

5. Use ▲ and ▼ to select On, and press ✔.

6. Use a USB cable to connect the F6 and the computer.
NOTE

• AIF with Rec cannot be used with the following settings and functions.
  - Sample rate settings other than 44.1/48 kHz
  - SD card reader (→ P. 139)
  - Audio interface (→ P. 141)
  - FRC-8 (→ P. 146)
• A driver is necessary for use with Windows. Download the driver from the ZOOM website (zoomcorp.com).
• When AIF with Rec is set to On, the sample rate cannot be changed.
• When AIF with Rec is set to On, files with sample rates that differ from the F6 setting cannot be played.
• Set the input source to USB1–4 to monitor sound played back from the computer (→ P. 81) or select USB1–4 in the output routing (→ P. 109, P. 112, P. 113).

■ Disconnecting

1. Press .

2. Use ▲ and ▼ to select Off, and press ✓.

3. Disconnect the cable from the computer and the F6.
Audio interface settings

The following settings can be made when using the F6 as an audio interface.

■ Setting loop back (Stereo Mix only)
This function mixes the playback sound from the computer or iOS device with the F6 input and sends the mix back to the computer or iOS device (loop back). This function can be used to add narration to music played back from the computer and to record the mix or stream it on the computer, for example.

1. Press 📢.

2. Use ▲ and ▼ to select LOOP BACK, and press ✓.

3. Use ▲ and ▼ to select On, and press ✓.

■ Mixing inputs
The mix balance of the inputs can be adjusted. Input signals will be sent to the computer or iOS device using the balance settings made here. When using a Stereo Mix setting, the mixed stereo signal will be sent.

1. Open the mixer on the Home Screen (→ P. 13).

2. Adjust the parameter settings.
See "Adjusting the input signal monitoring balance" (→ P. 79) for how to change settings.
**Using an FRC-8 as a controller**

When an **FRC-8** is connected to the **F6**, it can be used to adjust settings, including trim, fader and pan.

**NOTE**

An **FRC-8** cannot be used when operating with AA batteries. When multiple power supplies are connected to an **F6**, the power supply being used will automatically change according to the remaining battery charge. When it switches to AA batteries, connection with an **FRC-8** will be interrupted.

1. Press 📲.

2. Use ▲ and ▼ to select **SYSTEM**, and press ✅.

3. Use ▲ and ▼ to select **USB**, and press ✅.

4. Use ▲ and ▼ to select **FRC-8**, and press ✅.

5. Use ▲ and ▼ to select **Connect**, and press ✅.

6. Use a USB cable to connect the **F6** and the **FRC-8**.

7. Turn the **FRC-8** power on.
NOTE
• When disconnecting the FRC-8, select Disconnect before unplugging the USB cable
• Select Connect and press ✔ to supply bus power from the F6 USB port. When bus power is being supplied, do not connect any device other than the FRC-8. Doing so could damage the F6 or a connected device.

HINT
When an F6 and an FRC-8 are connected, the FRC-8 will always operate on USB bus power. AA batteries and DC power supply connected to the it are disabled.
Setting the type of keyboard connected to the FRC-8

A PC keyboard can be connected to the **FRC-8** and used to input characters. Set the type to use the PC keyboard connected to the **FRC-8**.

1. Press 📋.
2. Use ↑ and ↓ to select SYSTEM, and press ✔.
3. Use ↑ and ↓ to select USB, and press ✔.
4. Use ↑ and ↓ to select FRC-8, and press ✔.
5. Use ↑ and ↓ to select Keyboard Type, and press ✔.
6. Use ⬆️ and ⬇️ to select the type, and press ✔️.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>This setting is for English-language keyboards.</td>
</tr>
<tr>
<td>JP</td>
<td>This setting is for Japanese keyboards.</td>
</tr>
</tbody>
</table>
Setting user keys for the FRC-8

Functions can be assigned to the **FRC-8** user keys.

1. Press 🡣.

2. Use ▲ and ▼ to select SYSTEM, and press 🡣.

3. Use ▲ and ▼ to select USB, and press 🡣.

4. Use ▲ and ▼ to select FRC-8, and press 🡣.

5. Use ▲ and ▼ to select User Key, and press 🡣.
6. Use ▲ and ▼ to select the key to which to assign a function, and press ✔️.

7. Use ▲ and ▼ to select the function to assign, and press ✔️.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No function is assigned.</td>
</tr>
<tr>
<td>Mark</td>
<td>Add marks to WAV format takes during recording and playback.</td>
</tr>
<tr>
<td>Key Hold</td>
<td>Use to disable the controls set with Key Hold Target.</td>
</tr>
<tr>
<td>Clear Clip Indicator</td>
<td>Clear the level meter clipping indicators.</td>
</tr>
<tr>
<td>Circled</td>
<td>Circle the currently selected take.</td>
</tr>
</tbody>
</table>
Setting the FRC-8 LED brightness

The brightness of the LEDs on the front of the FRC-8 can be adjusted.

1. Press 🔄.

2. Use ⬆️ and ⬇️ to select SYSTEM, and press ✓.

3. Use ⬆️ and ⬇️ to select USB, and press ✓.

4. Use ⬆️ and ⬇️ to select FRC-8, and press ✓.

5. Use ⬆️ and ⬇️ to select LED Brightness, and press ✓.
6. Use ▲ and ▼ to adjust the brightness, and press ✔.

HINT
This can be set from 5 to 100.
Updating the FRC-8 firmware

The FRC-8 firmware version can be checked and updated to the latest version. The latest update file can be downloaded from the ZOOM website (zoomcorp.com).

1. See "Using an FRC-8 as a controller" (→ P. 146), and connect the F6 and the FRC-8.

**NOTE**
Updating is not possible if the remaining power of the L battery is low. In this case, use a charged L battery.

2. Copy the update file to the root directory on an SD card.

3. Load the SD card into the SD slot.

4. Press 📷.

5. Use ⬆ and ⬇ to select SYSTEM, and press 🔄.

6. Use ⬆ and ⬇ to select USB, and press 🔄.

7. Use ⬆ and ⬇ to select FRC-8, and press 🔄.

▶ Continue to one of the following procedures.

- Checking the firmware versions ........................................... P. 155
- Updating the firmware ......................................................... P. 155
### Updating the firmware

8. Use ▲ and ▼ to select Firmware, and press ✓.

9. Use ▲ and ▼ to select Update, and press ✓.

10. Use ▲ and ▼ to select Update, and press ✓.

### Checking the firmware versions

8. Use ▲ and ▼ to select Firmware, and press ✓.


10. Use ▲ and ▼ to select Update, and press ✓.
NOTE
Do not turn the power off, remove an SD card or disconnect the USB cable during an update. Doing so could cause the FRC-8 to become unstartable.

11. After the update completes, turn the FRC-8 power off.
Operating with an iOS device

Connecting with an iOS device
By connecting a ZOOM wireless adapter (e.g. BTA-1) and using the dedicated controller app, the F6 can be operated from an iOS device.

**NOTE**
- The dedicated app must be installed on the iOS device beforehand. The dedicated app can be downloaded from the App Store.
- See the manual for the app for procedures to set and operate it.

1. Remove the wireless adapter connector cover and connect the wireless adapter.

2. Press 📲.

3. Use 🔼 and ▼ to select SYSTEM, and press ✓.
4. Use ▲ and ▼ to select Bluetooth, and press ✓.

5. Use ▲ and ▼ to select F6 Control(iOS 9-12) or F6 Control, and press ✓.
   Select this according to the version used by the connected iOS device.
   • Use F6 Control(iOS 9-12) with iOS 9 – 12
   • Use F6 Control with iOS/iPadOS 13 or later

6. Use ▲ and ▼ to select Connect, and press ✓.

7. Launch the dedicated app on the iOS device.
   If a list of Bluetooth devices appears on F6 Control, connection will start when you tap Device Name/ID.
   When connection completes, “Connected” will appear on the F6 display.

HINT
   • If a request for pairing appears from F6 Control, input the password shown on the recorder.

   • If connection is not successful, move the iOS device closer to the recorder or move both to a place where nothing interferes with radio waves and start F6 Control again. Confirm also that the Bluetooth function of the iOS device can be used. If connection is still not possible, follow the instructions in the iOS device operation manual to unregister the F6 as a Bluetooth device on it. Then, repeat the procedures from the beginning.
Disconnecting from an iOS device

1. Press 📲.

2. Use ▲ and ▼ to select SYSTEM, and press ✅.

3. Use ▲ and ▼ to select Bluetooth, and press ✅.

4. Use ▲ and ▼ to select F6 Control(iOS 9-12) or F6 Control, and press ✅.

5. Use ▲ and ▼ to select Disconnect, and press ✅.
Connecting with an UltraSync BLUE
If the F6 is connected to an UltraSync BLUE, it can receive timecode from the UltraSync BLUE and add it to recording files.

1. Remove the wireless adapter connector cover and connect the wireless adapter.

2. Press ( ).

3. Use ( ) and ( ) to select SYSTEM, and press ( ).

4. Use ( ) and ( ) to select Bluetooth, and press ( ).

5. Use ( ) and ( ) to select Timecode, and press ( ).

6. Use ( ) and ( ) to select Connect, and press ( ).

Searching for the connected device will begin and "Searching" will appear on the display.

HINT
• Searching can be canceled by pressing any button.
• After canceling searching, it can be restarted by selecting Menu > Timecode > Pair/Forget > Pair again.
7. Select the F6 as a connected device on the UltraSync BLUE.
   When pairing completes, “Connected” will appear on the F6 display.

   **HINT**
   • See the UltraSync BLUE manual for the procedures to select connected devices.
   • Use the F6 and the UltraSync BLUE as close together as possible to make communication more reliable.
   • Even if communication with the UltraSync BLUE is interrupted, timecode generated by the F6 will be added to recording files.

---

## Disconnecting from an UltraSync BLUE

Disconnect the F6 and the UltraSync BLUE to stop recording timecode from it. Pairing information will be retained even when disconnected.

1. Press 📡.

2. Use ▲ and ▼ to select SYSTEM, and press ✔.

3. Use ▲ and ▼ to select Bluetooth, and press ✔.

4. Use ▲ and ▼ to select Timecode, and press ✔.
5. Use ▲ and ▼ to select Disconnect, and press ✔.

- Connecting to a different UltraSync BLUE
To receive timecode from an UltraSync BLUE other than the one connected to the F6, the pairing with the current UltraSync BLUE must be removed, and pairing with the other UltraSync BLUE must be conducted.

1. Press ✔.

2. Use ▲ and ▼ to select TIMECODE, and press ✔.

3. Use ▲ and ▼ to select Pair/Forget and press ✔.
4. Use ▲ and ▼ to select Forget, and press ☑.

5. Use ▲ and ▼ to select Pair, and press ☑.
Searching for the connected device will begin and “Searching” will appear on the display.

HINT
• Searching can be canceled by pressing any button.
• After canceling searching, it can be restarted by selecting Menu > Time-code > Pair/Forget > Pair again.

6. Select as the connected device on the other UltraSync BLUE.
When pairing completes, “Connected” will appear on the F6 display.

HINT
• See the UltraSync BLUE manual for the procedures to select connected devices.
• Use the F6 and the UltraSync BLUE as close together as possible to make communication more reliable.
• Even if communication with the UltraSync BLUE is interrupted, timecode generated by the F6 will be added to recording files.
Other settings

Setting the level meter peak hold time

1. Press 📦.

2. Use ⬆️ and ⬇️ to select SYSTEM, and press ✅.

3. Use ⬆️ and ⬇️ to select Settings, and press ✅.

4. Use ⬆️ and ⬇️ to select Display, and press ✅.

5. Use ⬆️ and ⬇️ to select Peak Hold Time, and press ✅.

6. Use ⬆️ and ⬇️ to adjust the peak hold time, and press ✅.
Setting the LED brightness

The brightness of the LEDs on the front of the F6 can be set.

1. Press ✅.

2. Use ▲ and ▼ to select SYSTEM, and press ✅.

3. Use ▲ and ▼ to select Settings, and press ✅.

4. Use ▲ and ▼ to select Power Saving, and press ✅.

5. Use ▲ and ▼ to select LED Brightness, and press ✅.

6. Use ▲ and ▼ to adjust the brightness, and press ✅.
HINT
This can be set from 5 to 100.
Making display settings

Settings related to the display can be made.

1. Press 📡.

2. Use ⬆ and ⬇ to select SYSTEM, and press ✔.

3. Use ⬆ and ⬇ to select Settings, and press ✔.

4. Use ⬆ and ⬇ to select Power Saving, and press ✔.

5. Use ⬆ and ⬇ to select LCD Brightness, and press ✔.

▶ Continue to one of the following procedures.

- Setting the display brightness .......................................................... P. 167
- Changing the display backlight setting ............................................. P. 168
- Making the display easier to read under bright light ............... P. 169
5. Use ▲ and ▼ to select Power Saving, and press ✓.

6. Use ▲ and ▼ to select the setting, and press ✓.

**Setting Explanation**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>The backlight brightness does not change even after time passes without use.</td>
</tr>
<tr>
<td>On (Low-Backlight)</td>
<td>The backlight dims after time without use.</td>
</tr>
<tr>
<td>On (Backlight-Off)</td>
<td>The backlight turns off after time without use.</td>
</tr>
</tbody>
</table>

**HINT**
This can be set from 5 to 100.

**Changing the display backlight setting**
The display backlight can be set to dim when 30 seconds pass without use.

4. Use ▲ and ▼ to select Power Saving, and press ✓.
Making the display easier to read under bright light

The display can be set to be easier to read in bright environments including in sunlight.

4. Use ▲ and ▼ to select Display, and press ✓.

5. Use ▲ and ▼ to select Outdoor Mode, and press ✓.

6. Use ▲ and ▼ to select On, and press ✓.
Setting how marks are added manually

How marks are added when [ ] is pressed while recording or playing back a WAV format file can be set.

1. Press [ ].

2. Use [ ] and [ ] to select SYSTEM, and press [ ].

3. Use [ ] and [ ] to select Settings, and press [ ].

4. Use [ ] and [ ] to select Key Settings, and press [ ].

5. Use [ ] and [ ] to select PLAY Key Option, and press [ ].

Continue to one of the following procedures.

Setting how marks are added when recording.......................... P. 171
Setting how marks are added when playing ......................... P. 171
### Setting how marks are added when recording

6. Use ▲ and ▼ to select Recording, and press ✅.

7. Use ▲ and ▼ to select how marks are added, and press ✅.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause Only</td>
<td>Pressing ▶️ will pause without adding a mark.</td>
</tr>
<tr>
<td>Pause &amp; Mark</td>
<td>Pressing ▶️ will pause and add a mark.</td>
</tr>
<tr>
<td>Mark Only</td>
<td>Pressing ▶️ will add a mark without pausing.</td>
</tr>
</tbody>
</table>

### Setting how marks are added when playing

6. Use ▲ and ▼ to select Playing, and press ✅.

7. Use ▲ and ▼ to select how marks are added, and press ✅.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause Only</td>
<td>Pressing ▶️ will pause without adding a mark.</td>
</tr>
<tr>
<td>Pause &amp; Mark</td>
<td>Pressing ▶️ will pause and add a mark.</td>
</tr>
<tr>
<td>Mark Only</td>
<td>Pressing ▶️ will add a mark without pausing.</td>
</tr>
</tbody>
</table>
Setting the buttons held

Use the hold function to prevent misoperation during recording. Press and hold to enable and disable the hold function. Follow these instructions to set which keys are disabled by the hold function.

1. Press .

2. Use and to select SYSTEM, and press .

3. Use and to select Settings, and press .

4. Use and to select Key Settings, and press .

5. Use and to select Key Hold Target, and press .

6. Use and to select the keys to be held, and press .
HINT
Track Knobs 1–6, MENU, ENTER, UP, DOWN, PLAY, REC, STOP, HP Volume Push and HP Volume Turn can be selected.

7. Press 🔒.

HINT
• Even when hold is on for HP Volume Push, pressing and holding 🔒 will turn the hold function off.
• Operation using the FRC-8 and F6 Control is possible even when the hold function is on.
Other functions

Checking SD card information

The size and open space of SD cards can be checked.

1. Press 🎊.

2. Use ▲ and ▼ to select SYSTEM, and press ✅.

3. Use ▲ and ▼ to select SD Card, and press ✅.

4. Use ▲ and ▼ to select Information, and press ✅.

SD card information

- Open space
- Size
- Remaining recording time
Testing SD card performance

SD cards can be tested to confirm whether they can be used with the FB. A basic test can be done quickly, while a full test examines the entire SD card.

1. Press 📋.

2. Use ↑ and ↓ to select SYSTEM, and press ✔.

3. Use ↑ and ↓ to select SD Card, and press ✔.

4. Use ↑ and ↓ to select Performance Test, and press ✔.

▶ Continue to one of the following procedures.

Conducting a quick test .......................................................... P. 176
Conducting a full test .............................................................. P. 177
Conducting a quick test

5. Use ▲ and ▼ to select Quick Test, and press ✓.

6. Use ▲ and ▼ to select Execute, and press ✓.

The card performance test will start. The test should take about 30 seconds.

The test completes. The result of the evaluation will be shown.

HINT
Press  to stop the test.

NOTE
Even if a performance test result is "OK", there is no guarantee that writing errors will not occur. This information is just to provide guidance.
5. Use ▲ and ▼ to select Full Test, and press ✓. The amount of time required for the full test will be shown.

6. Use ▲ and ▼ to select Execute, and press ✓. The test completes. The result of the evaluation will be shown. If the access rate MAX reaches 100%, the card will fail (NG).

**NOTE**
Even if a performance test result is "OK", there is no guarantee that writing errors will not occur. This information is just to provide guidance.

**HINT**
Press ⏹️ to stop the test.
Formatting SD cards

Formatting SD cards for use with the F6.

1. Press \( \text{F} \).

2. Use \( \uparrow \) and \( \downarrow \) to select SYSTEM, and press \( \text{OK} \).

3. Use \( \uparrow \) and \( \downarrow \) to select SD Card, and press \( \text{OK} \).

4. Use \( \uparrow \) and \( \downarrow \) to select Format, and press \( \text{OK} \).

5. Use \( \uparrow \) and \( \downarrow \) to select Execute, and press \( \text{OK} \).

NOTE

- Before using SD cards that have just been purchased or that have been formatted on a computer, they must be formatted by the F6.
- Be aware that all data previously saved on the SD card will be deleted when it is formatted.
Checking the F6 Shortcut List

The **F6** has a shortcut feature that allows quick access to various functions. See the "List of shortcuts" (→ P. 192) to check the shortcut functions.

1. Press **[ ]**.

2. Use **[ ]** and **[ ]** to select **SYSTEM** and press **[ ]**.

3. Use **[ ]** and **[ ]** to select **Settings** and press **[ ]**.

4. Use **[ ]** and **[ ]** to select **Key Settings** and press **[ ]**.

5. Use **[ ]** and **[ ]** to select **Shortcut List** and press **[ ]**.

The **F6** has a shortcut feature that allows quick access to various functions. See the "List of shortcuts" (→ P. 192) to check the shortcut functions.
Backing up and loading F6 settings

**F6** settings can be backed up to and loaded from SD cards.

1. Press ⏹️.

2. Use ↑ and ↓ to select SYSTEM, and press ✔.

3. Use ↑ and ↓ to select SD Card, and press ✔.

4. Use ↑ and ↓ to select Backup Settings, and press ✔.

▶ Continue to one of the following procedures.

- Backing up ................................................................. P. 181
- Loading ................................................................. P. 181
**Backing up**
This saves a backup file to the "F6_SETTINGS" folder in the root directory of the SD card.

5. Use \( \uparrow \) and \( \downarrow \) to select Backup, and press \( \checkmark \).

6. Edit the name of the file saved.
   See "Character input screen" (→ P. 14) for how to input characters.

**Loading**
Backup files that are saved in the "F6_SETTINGS" folder in the root directory of the SD card can be loaded.

5. Use \( \uparrow \) and \( \downarrow \) to select Load/Delete, and press \( \checkmark \).

6. Use \( \uparrow \) and \( \downarrow \) to select the file to load, and press \( \checkmark \).

**HINT**
The extension of the saved backup file is ".ZSF".

**HINT**
* Press and hold \( \checkmark \) to delete a file.
* Deleting a file will completely erase its data.
7. Use ⬆️ and ⬇️ to select Execute, and press ✔️.
Restoring default setting values

The factory default settings can be restored.

1. Press □.

2. Use ▲ and ▼ to select SYSTEM, and press ✔.

3. Use ▲ and ▼ to select Settings, and press ✔.

4. Use ▲ and ▼ to select Factory Reset, and press ✔.

5. Use ▲ and ▼ to select Execute, and press ✔.

The settings will be reset and the power will automatically turn off.
Checking the firmware version

Firmware versions can be checked.

1. Press 📺.

2. Use ▲ and ▼ to select SYSTEM, and press ✔.

3. Use ▲ and ▼ to select Firmware Version, and press ✔.
Updating the firmware

The **F6** firmware can be updated to the latest versions.
The latest update file can be downloaded from the ZOOM website (zoomcorp.com).

1. Install new batteries in the **F6** or connect the dedicated AC adapter to the USB connector.

**NOTE**
Upgrading is not possible if the remaining battery power is low. In this case, replace the batteries with new ones or use the dedicated adapter.

2. Copy the update file to the root directory on an SD card.

3. Load the SD card into the card slot, and turn the power on while pressing **[on]**.

4. Use **▲** and **▼** to select Update, and press **✔**.

**NOTE**
Do not turn the power off or remove the SD card during the update. Doing so could cause the **F6** to become unstartable.

5. After the update completes, turn the power off.

**NOTE**
In the unlikely event that a firmware update should fail while in progress, conduct the procedures from the beginning to update the firmware again.

The firmware can be updated to the latest versions.
The latest update file can be downloaded from the ZOOM website (zoomcorp.com).
Appendix

Troubleshooting

If you think that the F6 is operating strangely, check the following items first.

■ Recording/playback trouble
  ◆ There is no sound or output is very quiet
    • Check the connections to the monitoring system and its volume setting.
    • Confirm that the volume of the F6 is not too low. (→ P. 36)
  ◆ Sound from connected equipment or inputs cannot be heard or is very quiet
    • Check the input level settings. (→ P. 28)
    • If a CD player or other device is connected to an input jack, raise the output level of that device.
    • Check the input signal monitoring settings. (→ P. 79)
    • Check the phantom power and plug-in power settings. (→ P. 81, P. 95)
    • Check the headphone and line output routing settings. (→ P. 109, P. 112, P. 113)
  ◆ Recording is not possible
    • Confirm that the status indicators are lit red.
    • Confirm that the SD card has open space. (→ P. 174)
    • Confirm that an SD card is loaded properly in a card slot.
    • If “Card Protected!” appears on the display, the SD card write-protection is enabled. Slide the lock switch on the SD card to disable write-protection.
  ◆ The recorded sound cannot be heard or is very quiet
    • Confirm that the volume levels of the tracks are not too low. (→ P. 55)
    • Confirm that the status indicators are lit green during playback.

■ Other trouble
  ◆ Computer does not recognize it even though it is connected to the USB port.
    • Confirm that the operating system is compatible. (→ P. 139)
    • The operation mode must be set on the F6 to allow the computer to recognize the F6. (→ P. 141)
◆ Battery operation time is short
Making the following settings could increase the battery operation time.
• Set the power supply used correctly. (→ P. 23)
• Turn unnecessary tracks off. (→ P. 27)
• Disconnect unneeded devices that are plugged into the HEADPHONE, LINE OUT or TIMECODE IN/OUT jacks, for example.
• Set the phantom power voltage to 24V. (→ P. 96)
• Disable phantom power during playback. (→ P. 96)
• Turn timecode off if not using it. (→ P. 128)
• Reduce the LED brightness. (→ P. 165)
• Reduce the LCD brightness. (→ P. 167)
• Set the display to dim when not used for some time. (→ P. 168)
• Reduce the sampling rate used to record files. (→ P. 30).
• Due to their characteristics, using nickel metal hydride batteries (especially high-capacity ones) or lithium batteries should enable longer use than alkaline batteries when power consumption is high.

◆ The date and time reset frequently
• Turn the power on to charge the built-in rechargeable battery used to retain the date and time.
# Metadata list

## Metadata contained in WAV file BEXT chunks

<table>
<thead>
<tr>
<th>Tag</th>
<th>Explanation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>zSPEED=</td>
<td>Frame rate</td>
<td>MENU &gt; TIMECODE &gt; FPS</td>
</tr>
<tr>
<td>zTAKE=</td>
<td>Take number</td>
<td></td>
</tr>
<tr>
<td>zUBITS=</td>
<td>Ubits</td>
<td>MENU &gt; TIMECODE &gt; Ubits</td>
</tr>
<tr>
<td>zSCENE=</td>
<td>Scene Name</td>
<td>MENU &gt; REC &gt; Metadata &gt; Scene Name &gt; Mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MENU &gt; REC &gt; Metadata &gt; Scene Name &gt; User Name</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Scene &gt; Scene/Take</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MENU &gt; FINDER &gt; Option &gt; Rename</td>
</tr>
<tr>
<td>zTAPE=</td>
<td>Name of recording destination</td>
<td>MENU &gt; FINDER (recording destination folder name)</td>
</tr>
<tr>
<td></td>
<td>folder</td>
<td>MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Tape Name</td>
</tr>
<tr>
<td>zCIRCLED=</td>
<td>Circled take</td>
<td>MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Circle</td>
</tr>
<tr>
<td>zTRK1=</td>
<td>Left track name</td>
<td></td>
</tr>
<tr>
<td>zTRK2=</td>
<td>Right track name</td>
<td></td>
</tr>
<tr>
<td>zTRK3=</td>
<td>Track 1 name</td>
<td></td>
</tr>
<tr>
<td>zTRK4=</td>
<td>Track 2 name</td>
<td></td>
</tr>
<tr>
<td>zTRK5=</td>
<td>Track 3 name</td>
<td></td>
</tr>
<tr>
<td>zTRK6=</td>
<td>Track 4 name</td>
<td></td>
</tr>
<tr>
<td>zTRK7=</td>
<td>Track 5 name</td>
<td></td>
</tr>
<tr>
<td>zTRK8=</td>
<td>Track 6 name</td>
<td></td>
</tr>
<tr>
<td>zNOTE=</td>
<td>Take note</td>
<td></td>
</tr>
</tbody>
</table>

Track names are written as follows:

TRK1=TrL, TRK2=TrR, TRK3=Tr1, TRK4=Tr2 ... TRK8=Tr6

MENU > Metadata > Note

MENU > FINDER > Option > Metadata Edit > Note
### Metadata contained in WAV file iXML chunks

<table>
<thead>
<tr>
<th>iXML master tag</th>
<th>iXML sub tag</th>
<th>Written</th>
<th>Read</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;PROJECT&gt;</td>
<td></td>
<td>○</td>
<td>○</td>
<td>MENU &gt; FINDER (folder name at top SD card level) MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Project Name</td>
</tr>
<tr>
<td>&lt;SCENE&gt;</td>
<td></td>
<td>○</td>
<td>○</td>
<td>MENU &gt; REC &gt; Metadata &gt; Scene Name &gt; Mode MENU &gt; REC &gt; Metadata &gt; Scene Name &gt; User Name MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Scene &gt; Scene/Take MENU &gt; FINDER &gt; Option &gt; Rename</td>
</tr>
<tr>
<td>&lt;TAKE&gt;</td>
<td></td>
<td>○</td>
<td>○</td>
<td>MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Take MENU &gt; FINDER &gt; Option &gt; Rename</td>
</tr>
<tr>
<td>&lt;TAPE&gt;</td>
<td></td>
<td>○</td>
<td>○</td>
<td>MENU &gt; FINDER (recording destination folder name) MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Folder (Tape) Name</td>
</tr>
<tr>
<td>&lt;CIRCLED&gt;</td>
<td></td>
<td>○</td>
<td>○</td>
<td>MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Circle</td>
</tr>
<tr>
<td>&lt;WILD TRACK&gt;</td>
<td></td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;FALSE START&gt;</td>
<td></td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;NO GOOD&gt;</td>
<td></td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;FILE_UID&gt;</td>
<td></td>
<td>○</td>
<td>×</td>
<td>MENU &gt; TIMECODE &gt; Timecode &gt; Ubits</td>
</tr>
<tr>
<td>&lt;UBITS&gt;</td>
<td></td>
<td>○</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;NOTE&gt;</td>
<td></td>
<td>○</td>
<td>○</td>
<td>MENU &gt; REC &gt; Metadata &gt; Note MENU &gt; FINDER &gt; Option &gt; Metadata Edit &gt; Note</td>
</tr>
<tr>
<td>&lt;BEXT&gt;</td>
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<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;USER&gt;</td>
<td></td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>iXML master tag</td>
<td>iXML sub tag</td>
<td>Written</td>
<td>Read</td>
<td>Remarks</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------</td>
<td>---------</td>
<td>------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;NOTE&gt;</td>
<td>○</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;MASTER_SPEED&gt;</td>
<td>○</td>
<td>○</td>
<td>MENU &gt; TIMECODE &gt; FPS</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;CURRENT_SPEED&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; TIMECODE &gt; FPS</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;TIMECODE_RATE&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; TIMECODE &gt; FPS</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;TIMECODE_FLAG&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; TIMECODE &gt; FPS</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;FILE_SAMPLE_RATE&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; REC &gt; Sample Rate</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;AUDIO_BIT_DEPTH&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; REC &gt; Mode</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;DIGITIZER_SAMPLE_RATE&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; REC &gt; Sample Rate</td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;TIMESTAMP_SAMPLES_SINCE_MIDNIGHT_HI&gt;</td>
<td>○</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;TIMESTAMP_SAMPLES_SINCE_MIDNIGHT_LO&gt;</td>
<td>○</td>
<td>×</td>
<td></td>
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<tr>
<td>&lt;SPEED&gt;</td>
<td>&lt;TIMESTAMP_SAMPLE_RATE&gt;</td>
<td>○</td>
<td>×</td>
<td>MENU &gt; REC &gt; Sample Rate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iXML master tag</th>
<th>iXML sub tag</th>
<th>Written</th>
<th>Read</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;SYNC_POINT_LIST&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;SYNC_POINT&gt;</td>
<td>&lt;SYNC_POINT_TYPE&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;SYNC_POINT&gt;</td>
<td>&lt;SYNC_POINT_FUNCTION&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;SYNC_POINT&gt;</td>
<td>&lt;SYNC_POINT_COMMENT&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
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<tr>
<td>&lt;SYNC_POINT&gt;</td>
<td>&lt;SYNC_POINT_LOW&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;SYNC_POINT&gt;</td>
<td>&lt;SYNC_POINT_HIGH&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;SYNC_POINT&gt;</td>
<td>&lt;SYNC_POINT_EVENT_DURATION&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iXML master tag</th>
<th>iXML sub tag</th>
<th>Written</th>
<th>Read</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;HISTORY&gt;</td>
<td>&lt;ORIGINAL_FILENAME&gt;</td>
<td>○</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;HISTORY&gt;</td>
<td>&lt;PARENT_FILENAME&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td>&lt;HISTORY&gt;</td>
<td>&lt;PARENT_UID&gt;</td>
<td>×</td>
<td>×</td>
<td></td>
</tr>
</tbody>
</table>
### iXML master tag | iXML sub tag | Written | Read | Remarks
--- | --- | --- | --- | ---
<File_SET> |  |  |  | 
<File_SET> | <TOTAL_FILES> | ○ | × | 
<File_SET> | <FAMILY_UID> | ○ | × | 
<File_SET> | <FAMILY_NAME> | × | × | 
<File_SET> | <FILE_SET_START_TIME_HI> | × | × | 
<File_SET> | <FILE_SET_START_TIME_LO> | × | × | 
<File_SET> | <FILE_SET_INDEX> | ○ | × | 

### iXML master tag | iXML sub tag | Written | Read | Remarks
--- | --- | --- | --- | ---
<TRACK_LIST> |  |  |  | 
<TRACK_LIST> | <TRACK_COUNT> | ○ | × | 
<TRACK> | <CHANNEL_INDEX> | ○ | × | 
<TRACK> | <INTERLEAVE_INDEX> | ○ | × | 
<TRACK> | <NAME> | ○ | ○ | MENU > REC > Metadata > Track Name
MENU > FINDER > Option > Metadata Edit > Track Name
<TRACK> | <FUNCTION> | × | × | 

○ = YES  × = NO

### Metadata and ID3 fields contained in MP3 files

<table>
<thead>
<tr>
<th>Metadata</th>
<th>ID3 field</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timecode</td>
<td>Artist Name</td>
<td>TC=HH:MM:SS:FF</td>
</tr>
<tr>
<td>Scene name, take number</td>
<td>Track Title</td>
<td>SC=[scene name] TK=[take number]</td>
</tr>
<tr>
<td>Frame rate, file length (time)</td>
<td>Album Title</td>
<td>FR=[frame rate] D=[file length (time)]</td>
</tr>
</tbody>
</table>
# List of shortcuts

## Home Screen

<table>
<thead>
<tr>
<th>Operation from F6</th>
<th>Operation from FRC-8</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press and hold</td>
<td>Press and hold MENU</td>
<td>Show the name that will be given to the next take recorded. Example: Scene001_002</td>
</tr>
<tr>
<td>◯ + ○</td>
<td>MENU + ENCODER press</td>
<td>Advance the scene number by 1 (when the Home Screen is open).</td>
</tr>
<tr>
<td>◯ + ▲</td>
<td>MENU + FF</td>
<td>The number given to the next recorded take can be increased or decreased by one when the Home Screen is open.</td>
</tr>
<tr>
<td>◯ + ◯</td>
<td>MENU + REW</td>
<td>Move the previously recorded take to the FALSE TAKE folder (when the Home Screen is open).</td>
</tr>
<tr>
<td>☐ + ◯</td>
<td>ENCODER press + FF</td>
<td>Open L/R track fader and line output level setting screen.</td>
</tr>
<tr>
<td>☐ + ▼</td>
<td>ENCODER press + REW</td>
<td>Click the level meter clipping indicators.</td>
</tr>
<tr>
<td>Press and hold</td>
<td>Press and hold FF</td>
<td>Circle the currently selected take.</td>
</tr>
</tbody>
</table>

## Input link, trim link and routing screens

<table>
<thead>
<tr>
<th>Operation from F6</th>
<th>Operation from FRC-8</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ + ▲</td>
<td>−</td>
<td>Move the cursor up.</td>
</tr>
<tr>
<td>☐ + ▼</td>
<td>−</td>
<td>Move the cursor down.</td>
</tr>
</tbody>
</table>

## All screens

<table>
<thead>
<tr>
<th>Operation from F6</th>
<th>Operation from FRC-8</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press and hold</td>
<td>−</td>
<td>Disable controls set with &quot;Key Hold&quot;.</td>
</tr>
</tbody>
</table>
Block diagrams

- Input and output signal flow (Linear and Dual modes)

The Input Limiter is disabled when in Dual mode.
**Input and output signal flow (Float mode)**

Converter "Rec Level" adjusts the recording levels of each input, and "Tr1-6 Fader" adjusts the levels of each input sent to the LR track. Both types of levels can be adjusted with the "Rec Level" and "Tr1-6 Fader" when recording is stopped. The behavior of the "Rec Level" and "Tr1-6 Fader" when recording is started can be set to one of the following two options using Menu > INPUT > Track Knob.

- **Reference Level (default)**: Operating the "Rec Level" when recording is stopped adjusts the "Rec Level". When recording starts, the "Rec Level" becomes fixed at the levels set at the time recording started. During recording, adjust the "Tr1-6 Faders".
- **Rec Level**: Always adjust the "Rec Level" both during recording and when recording is stopped. The "Tr1-6 Faders" are bypassed.

---

For detailed diagram and connections, refer to the page.
Input and output signal flow (Audio Interface Stereo Mix)
Input and output signal flow (Audio Interface Multi Track)
Detailed block diagram (Linear & Dual modes)
Detailed block diagram (Float mode)
Detailed block diagram (Routing)
**Specifications**

**Recording media**
- SD cards, SDHC cards, SDXC cards (that conform to standards)

**Inputs**
<table>
<thead>
<tr>
<th>Connectors</th>
<th>XLR jack (pin 2 hot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input gain</td>
<td>+12 dB – +75 dB</td>
</tr>
<tr>
<td>Input impedance</td>
<td>3 kΩ</td>
</tr>
<tr>
<td>Maximum input level</td>
<td>+4 dBu</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connectors</th>
<th>XLR jack (pin 2 hot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input gain</td>
<td>-8 dB – +55 dB</td>
</tr>
<tr>
<td>Input impedance</td>
<td>5 kΩ</td>
</tr>
<tr>
<td>Maximum input level</td>
<td>+24 dBu</td>
</tr>
</tbody>
</table>

**Phantom power**
- +24/+48V 10mA maximum for each channel

**Equivalent input noise**
- -127 dBu or less (A-weighted, +75 dB input gain, 150Ω input)

**Outputs**
<table>
<thead>
<tr>
<th>Connectors</th>
<th>3.5 mm stereo mini unbalanced output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output impedance</td>
<td>100 Ω or less</td>
</tr>
<tr>
<td>Reference output level</td>
<td>-10 dBV, 1 kHz, 10kΩ load</td>
</tr>
<tr>
<td>Maximum output level</td>
<td>+10 dBV, 1 kHz, 10kΩ load</td>
</tr>
</tbody>
</table>

**Headphone output**
<table>
<thead>
<tr>
<th>Connectors</th>
<th>3.5 mm stereo mini unbalanced output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output impedance</td>
<td>15 Ω or less</td>
</tr>
<tr>
<td>Maximum output level</td>
<td>100 mW + 100 mW (32Ω load)</td>
</tr>
</tbody>
</table>

**Recording formats**

**When WAV selected**
- **Supported formats**: 44.1/47.952/48/48.048/88.2/96/192 kHz, 16/24-bit/32-bit float, mono/stereo/2-8ch poly, BWF/iXML supported
- **Maximum simultaneous recording tracks**: 14 (6 inputs x 2 (Liner and Floating) + LR mix), 6 (6 inputs (Liner or Floating) at 192kHz sampling rate)

**When MP3 selected**
- **Supported formats**: 128/192/320kbps, 44.1/48 kHz, ID3v1 tags supported
- **Maximum simultaneous recording tracks**: 2

**Recording time**
- Using a 32 GB card: 30:46:00 (48 kHz/24-bit stereo WAV), 7:41:00 (192 kHz/24-bit stereo WAV)

**Timecode**
| Connector | 3.5 mm stereo mini (Tip: IN, Ring: OUT) |
| Modes | Off, Int Free Run, Int Record Run, Int RTC Run, Ext, Ext Auto Rec (audio clock can be synchronized to timecode) |
| Frame rates | 23.976 ND, 24 ND, 25 ND, 29.97 ND, 29.97 D, 30 ND, 30 D |
| Precision | ±0.2 ppm |
| Allowed input level | 0.2 – 5.0 Vpp |
| Allowed input impedance | 4.6 kΩ |
| Output level | 3.3 Vpp |
| Output impedance | 50 Ω or less |

**Power**
- AC adapter (ZOOM AD-17); DC 5V/1A (supports USB bus power)
- Sony® L-Series battery
- 4 AA batteries (alkaline, lithium or rechargeable NiMH batteries)
### Continuous recording time

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Sampling Rate</th>
<th>Bit Rate</th>
<th>Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous recording</td>
<td>48 kHz/16-bit 2ch recording to SD card</td>
<td>16-bit</td>
<td>4 in/2 out</td>
</tr>
<tr>
<td></td>
<td>48 kHz/24-bit 6ch recording to SD card</td>
<td>24-bit</td>
<td>6 in/4 out</td>
</tr>
<tr>
<td>192 kHz/24-bit 6ch recording to SD card</td>
<td>192 kHz/24-bit 6ch recording to SD card</td>
<td>24-bit</td>
<td>8 in/4 out</td>
</tr>
</tbody>
</table>

### Battery Life

- **Alkaline batteries**: 7.5 hours or more
- **NiMH batteries (2500 mAh)**: 10.5 hours or more
- **Lithium batteries**: 16.5 hours or more
- **Alkaline batteries**: 4.5 hours or more
- **NiMH batteries (2500 mAh)**: 7 hours or more
- **Lithium batteries**: 10.5 hours or more
- **Alkaline batteries**: About 0.5 hours
- **NiMH batteries (2500 mAh)**: 1.0 hours or more
- **Lithium batteries**: 3.0 hours or more

### Display

- 1.54" full-color LCD (240 × 240)

### USB

- **Mass storage operation**: USB 2.0 High Speed
- **Multitrack audio interface operation**: USB 2.0 High Speed
- **Stereo mix audio interface operation**: USB 2.0 Full Speed
- **AIF with Rec operation**: USB 2.0 High Speed

### Power consumption

- **Main unit only**: 1 W
- **Using L battery with FRC-8 connected**: 10 W

### External dimensions

- 100 mm (W) × 119.8 mm (D) × 62.9 mm (H)

### Weight

- 520 g